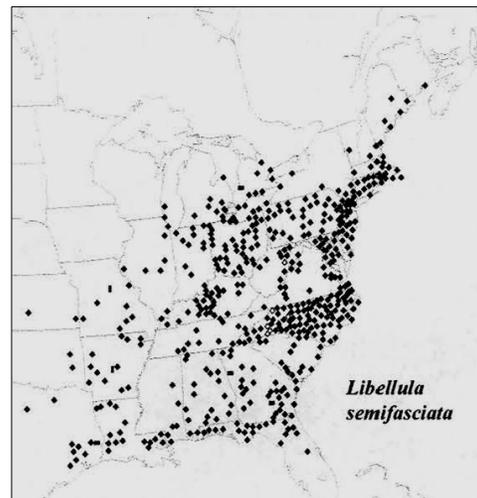
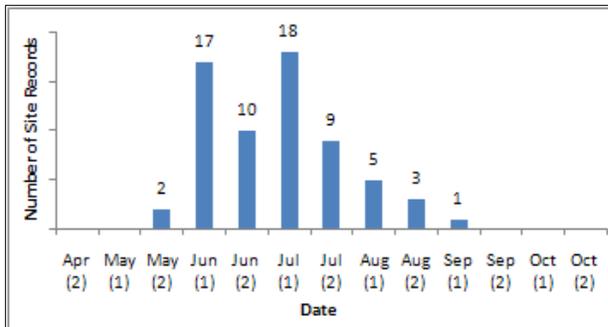
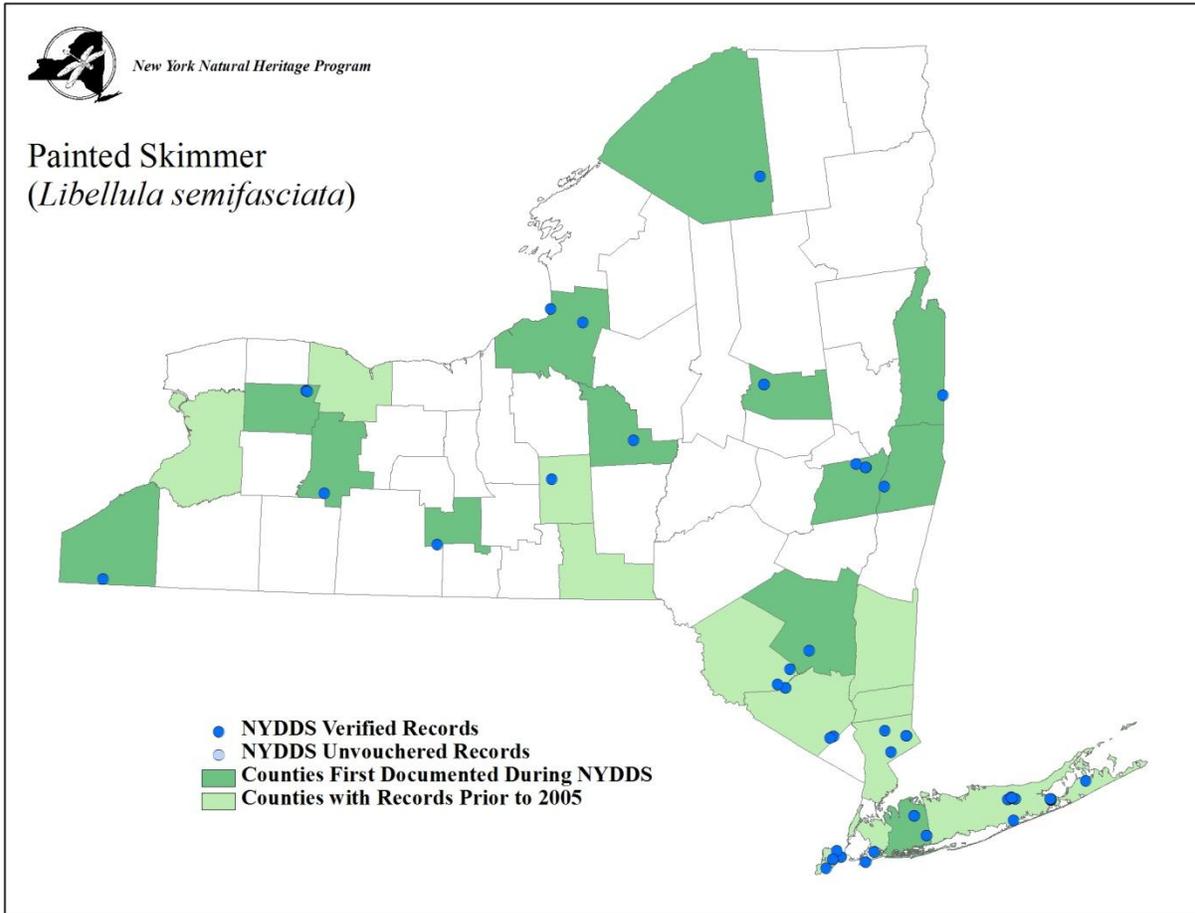


**LIBELLULIDAE**

**Painted Skimmer (*Libellula semifasciata*)**

Pre-NYDDS Status: G5, S5



(Donnelly 2004d)

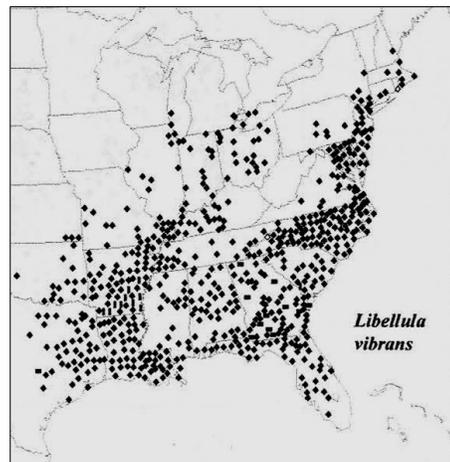
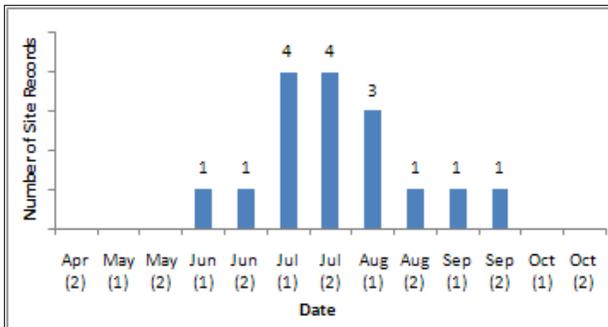
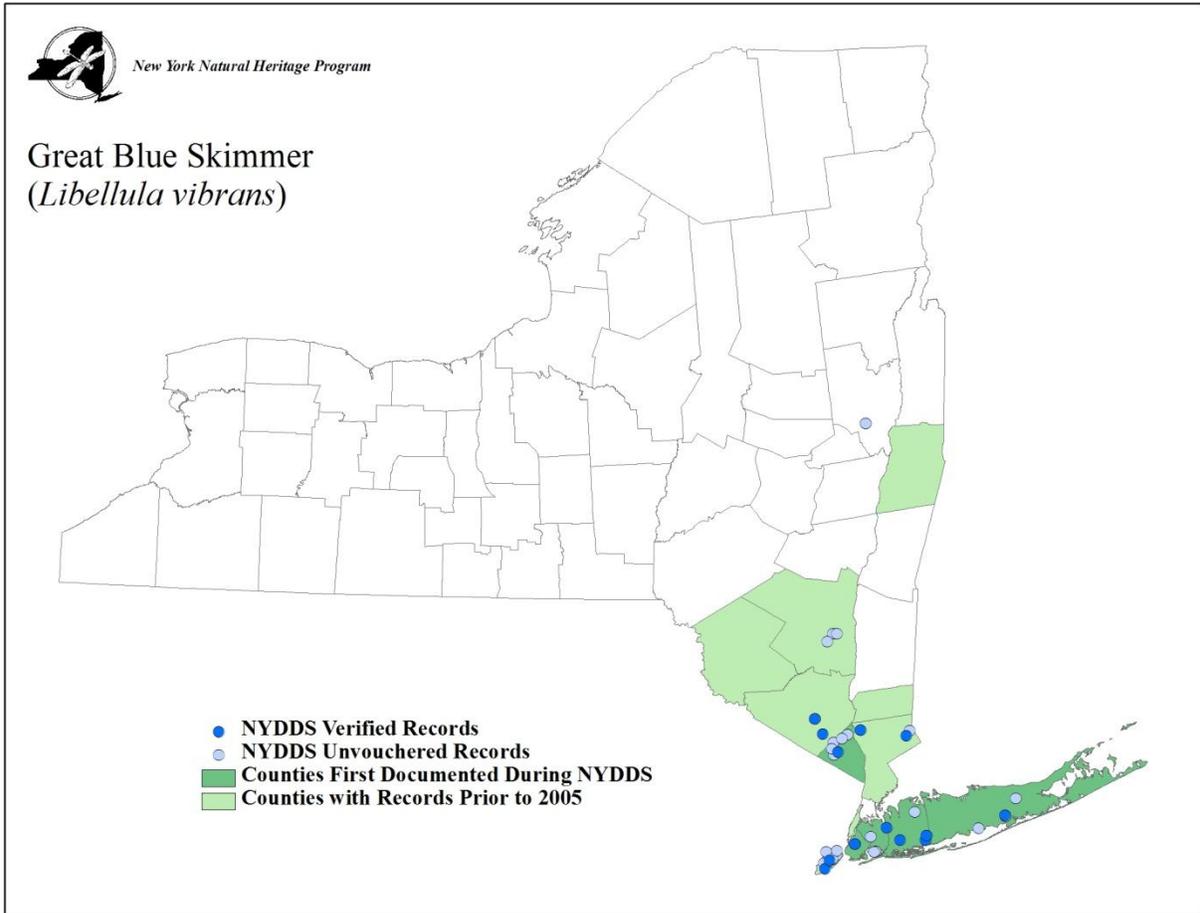


**LIBELLULIDAE**

**Great Blue Skimmer (*Libellula vibrans*)**

**Pre-NYDDS Status: G5, S3S4**

**Draft Revised Status: S3**



(Donnelly 2004d)

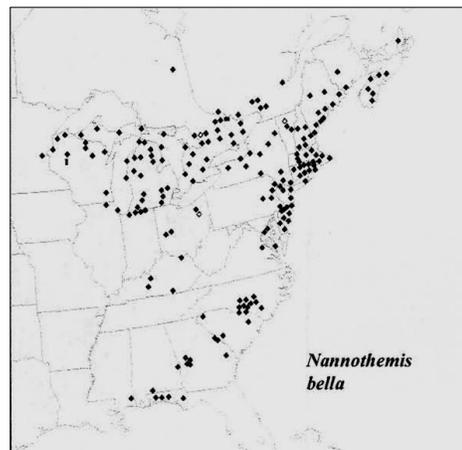
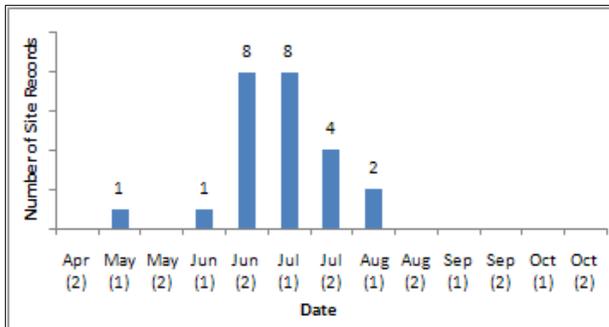
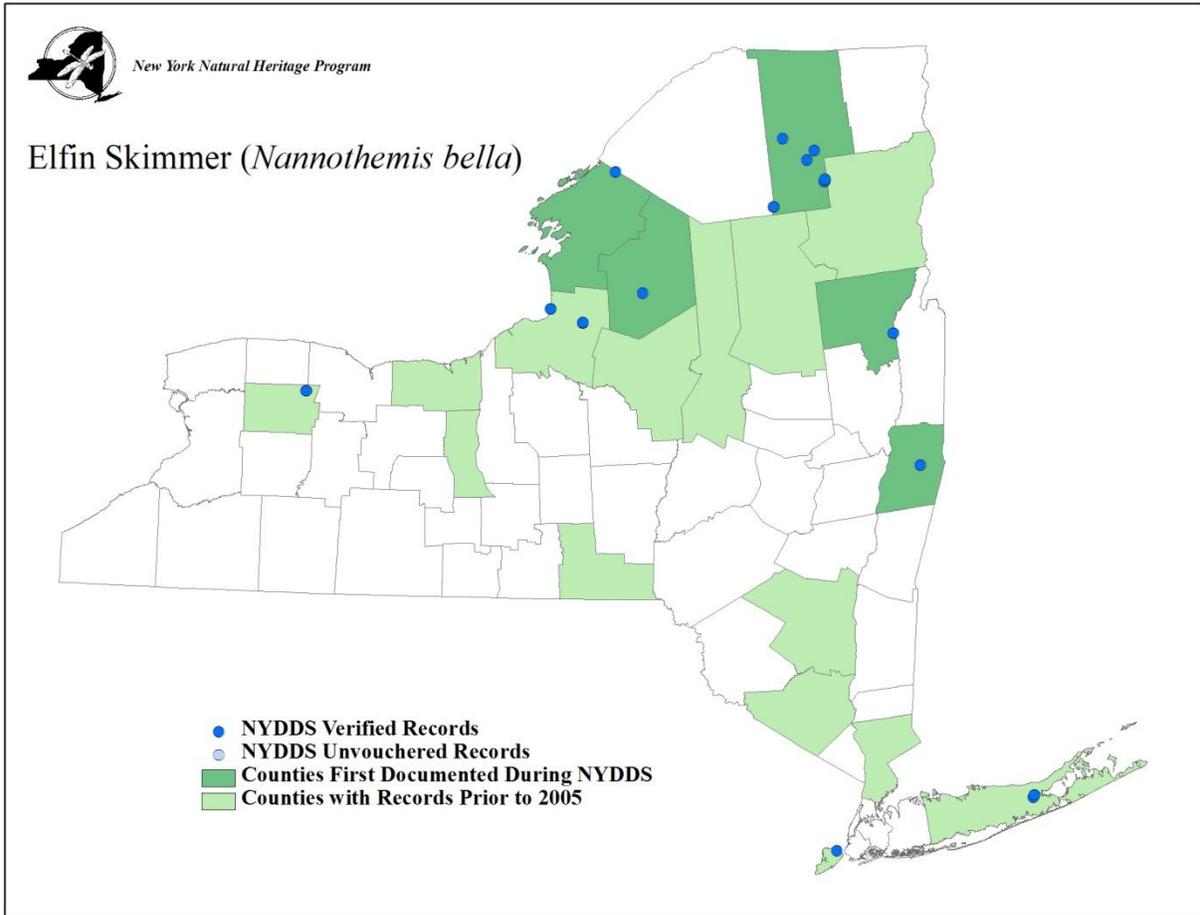


**LIBELLULIDAE**

**Elfin Skimmer (*Nannothemis bella*)**

**Pre-NYDDS Status: G4, S4**

**Draft Revised Status: S3**



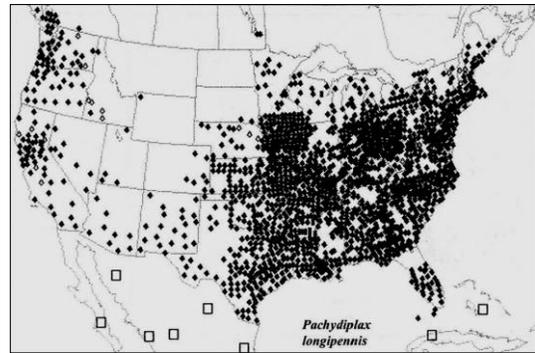
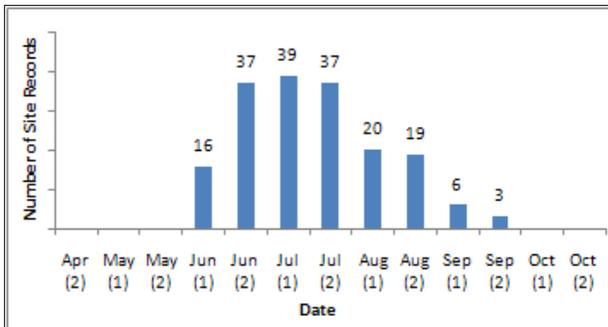
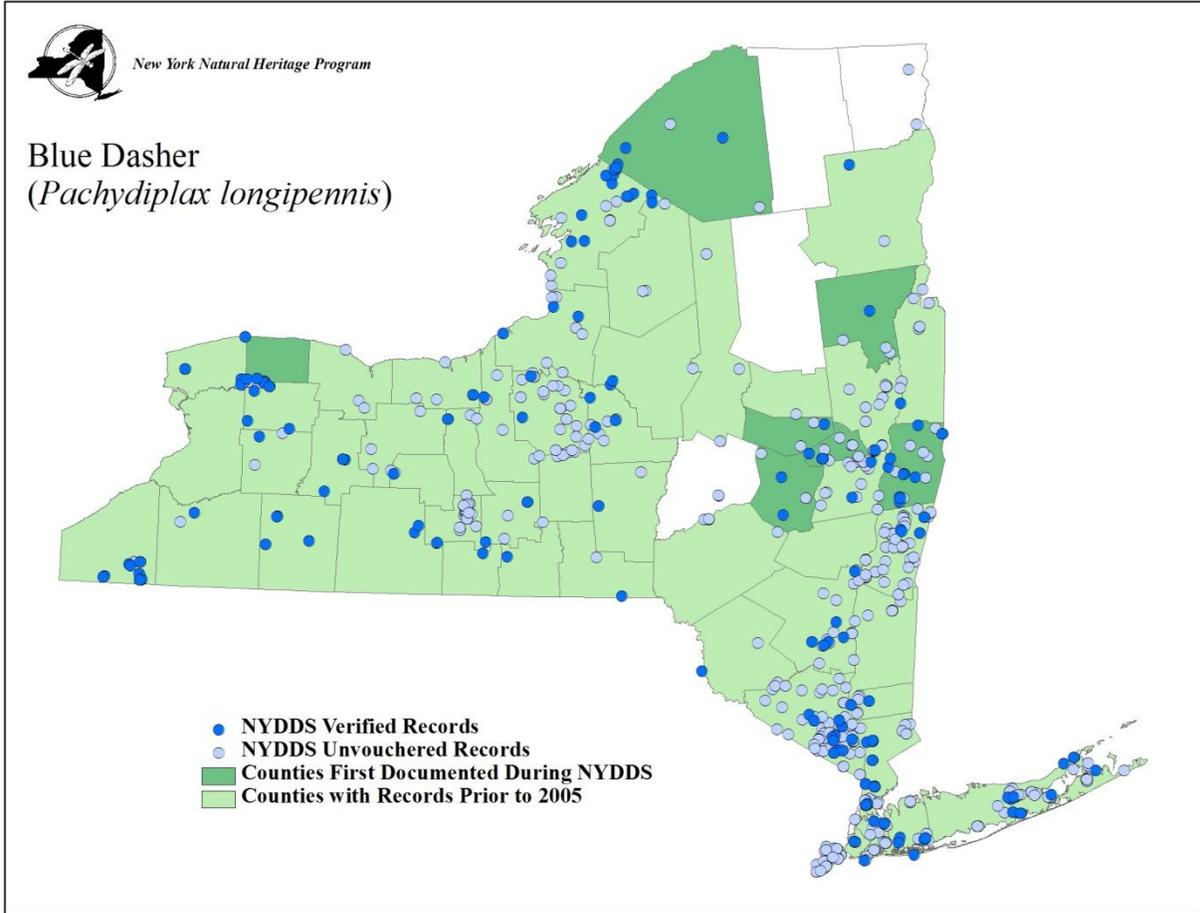
(Donnelly 2004d)



**LIBELLULIDAE**

**Blue Dasher (*Pachydiplax longipennis*)**

Pre-NYDDS Status: G5, S5



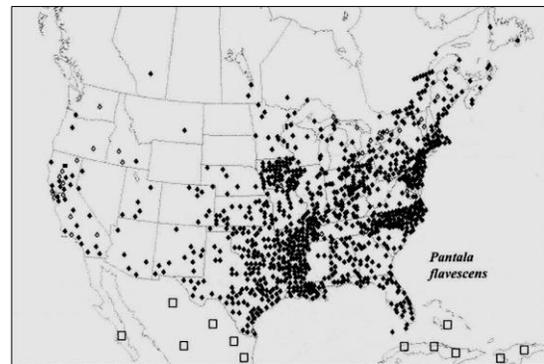
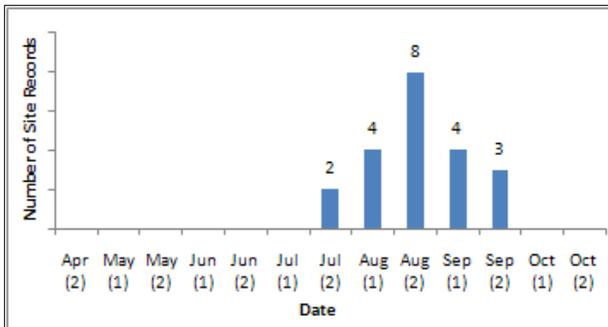
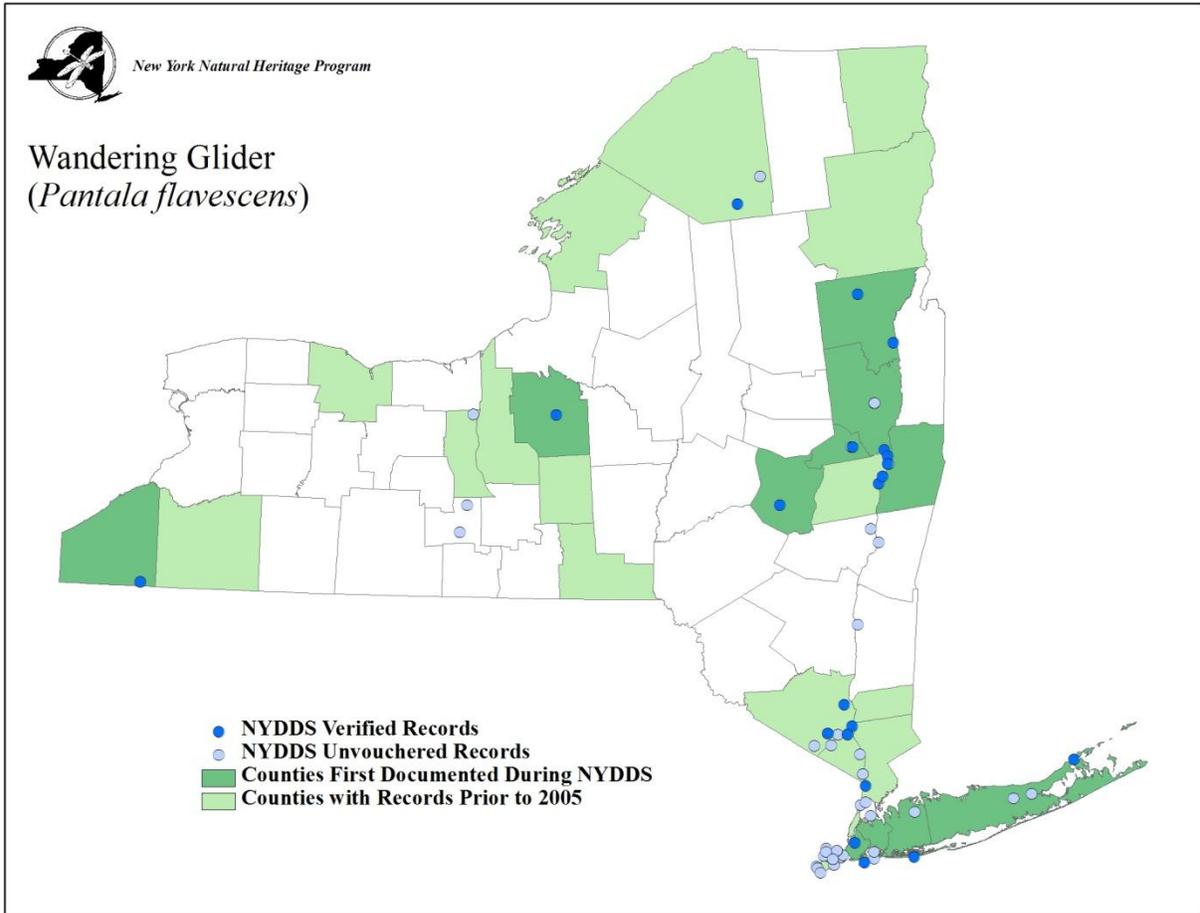
(Donnelly 2004d)



**LIBELLULIDAE**

**Wandering Glider (*Pantala flavescens*)**

**Pre-NYDDS Status: G5, S5**



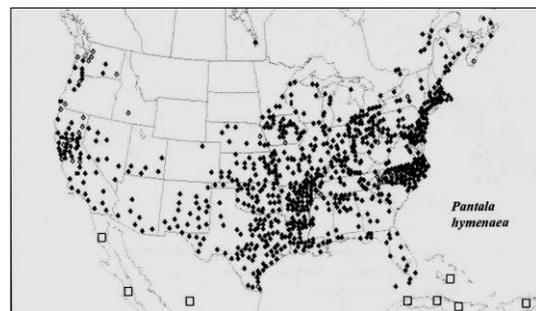
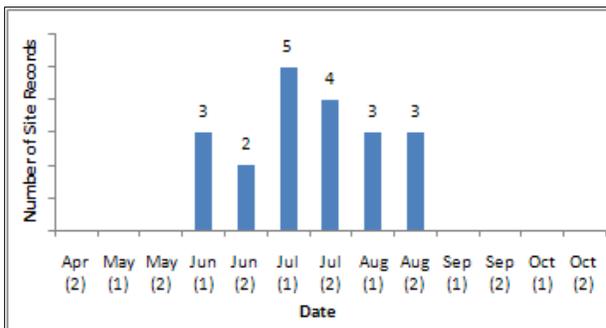
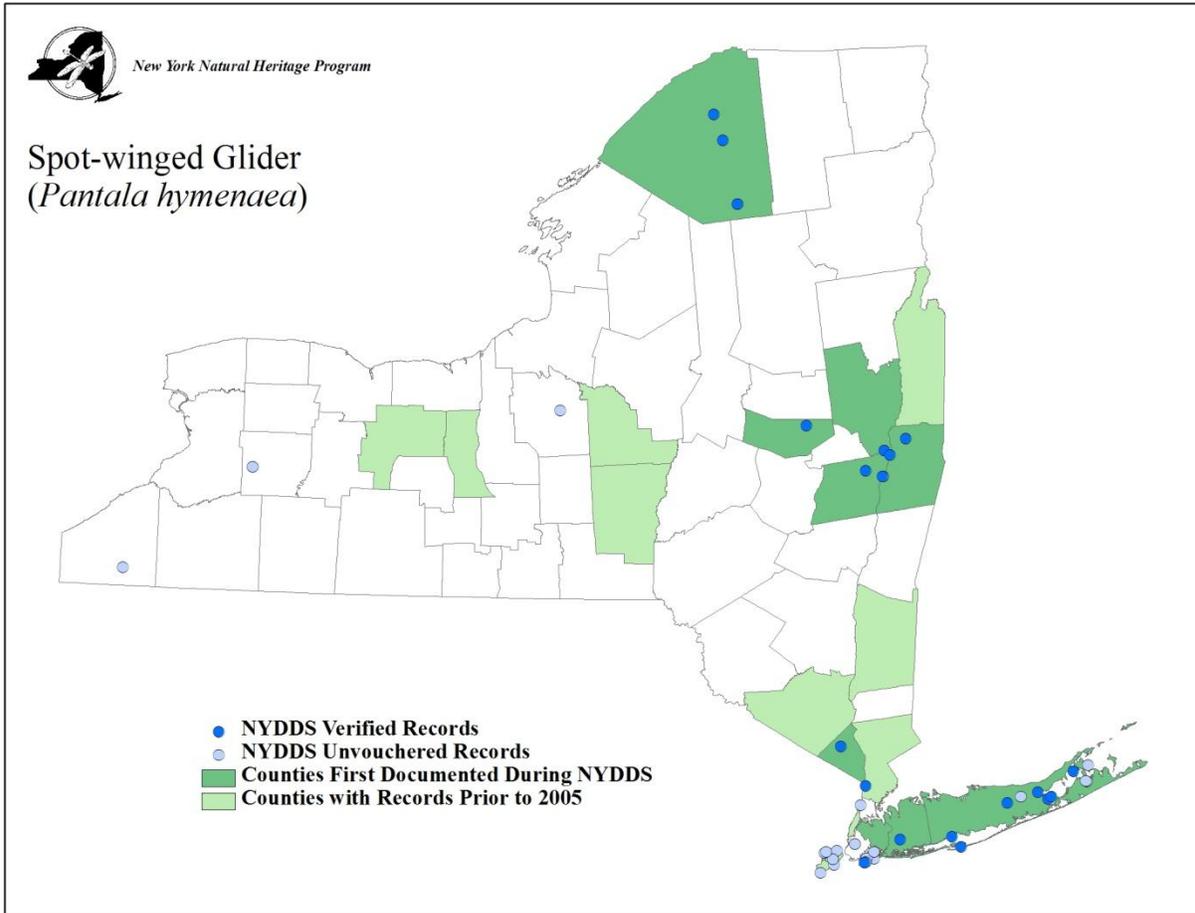
(Donnelly 2004d)



**LIBELLULIDAE**

**Spot-winged Glider (*Pantala hymenaea*)**

Pre-NYDDS Status: G5, S5



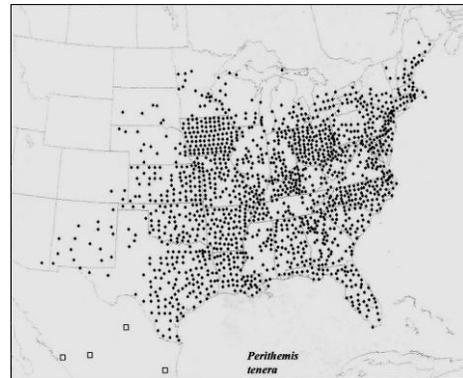
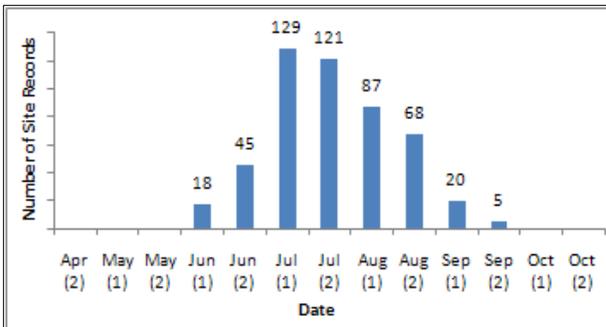
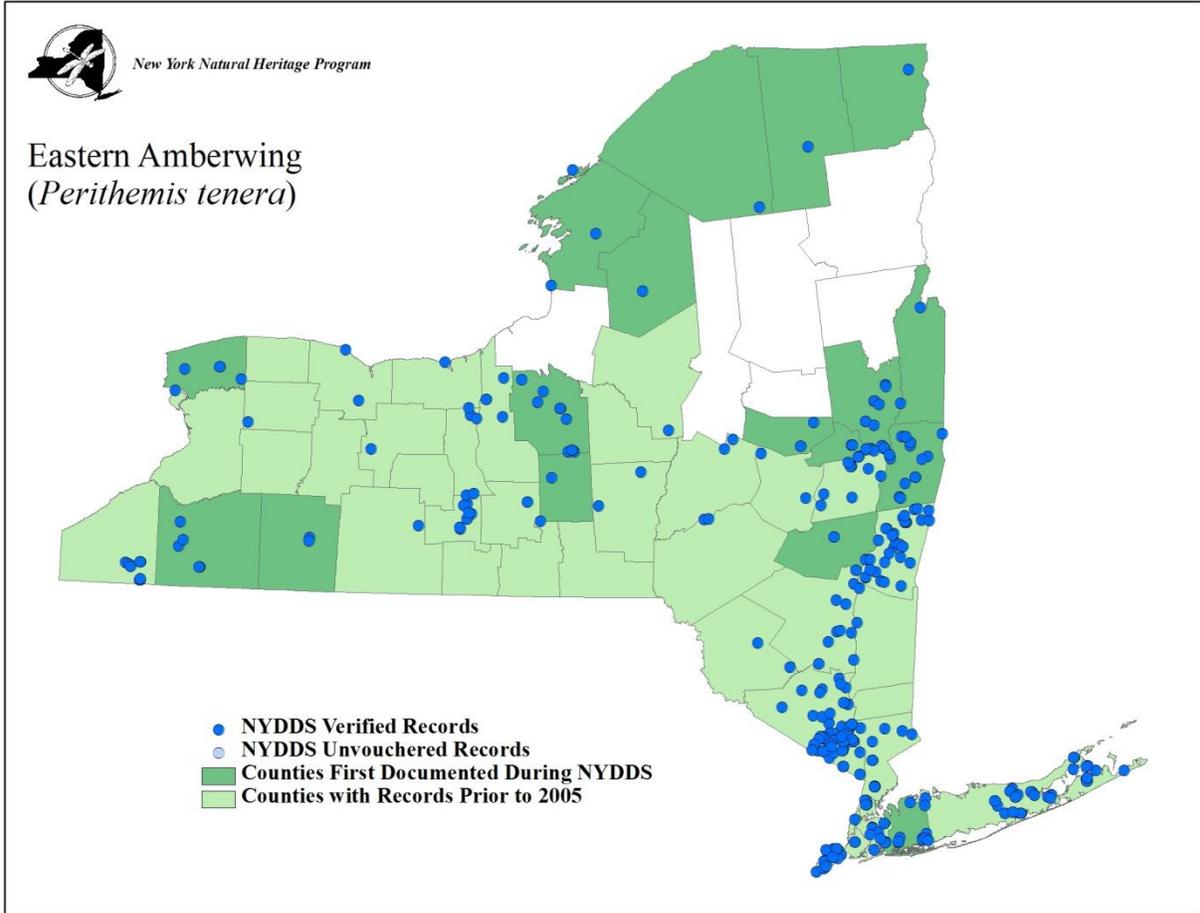
(Donnelly 2004d)



**LIBELLULIDAE**

**Eastern Amberwing (*Perithemis tenera*)**

Pre-NYDDS Status: G5, S5



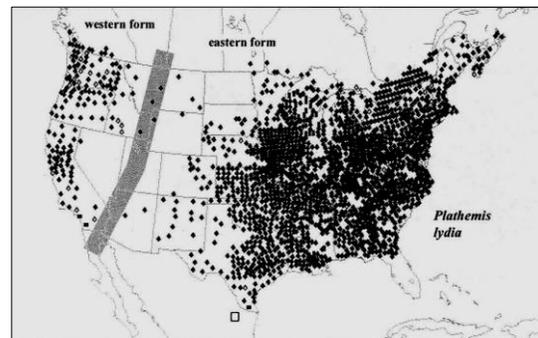
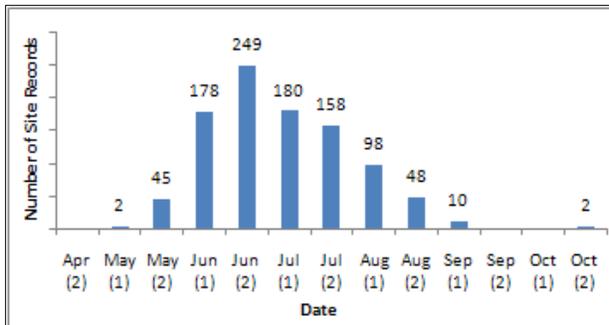
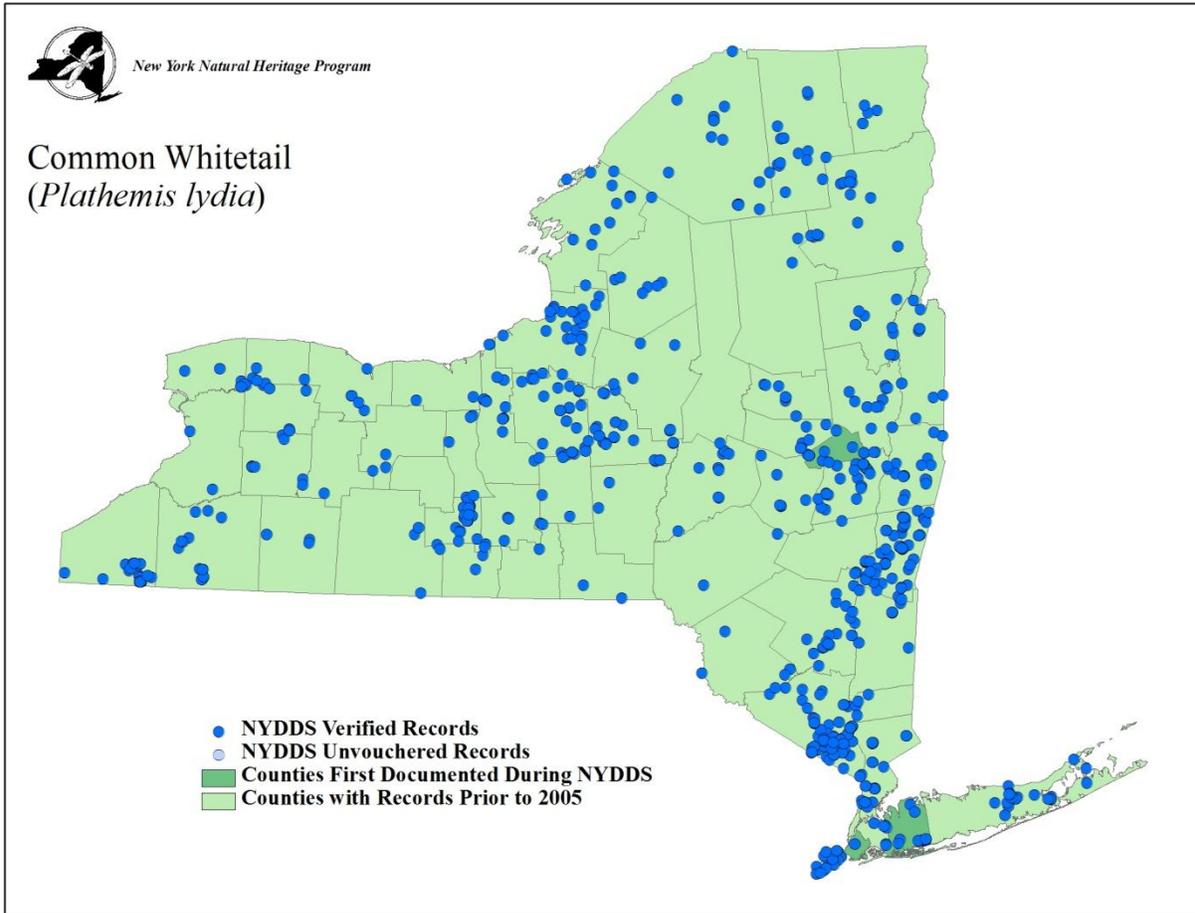
(Donnelly 2004d)



**LIBELLULIDAE**

**Common Whitetail (*Plathemis lydia*)**

Pre-NYDDS Status: G5, S5



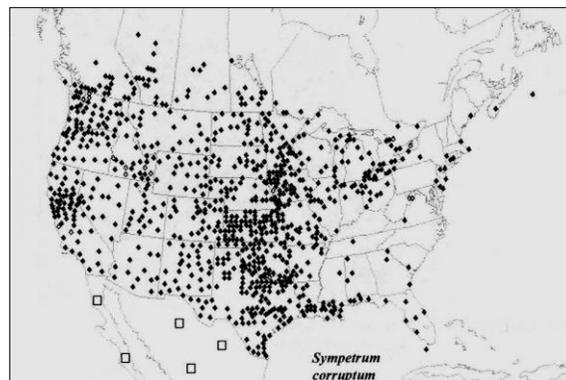
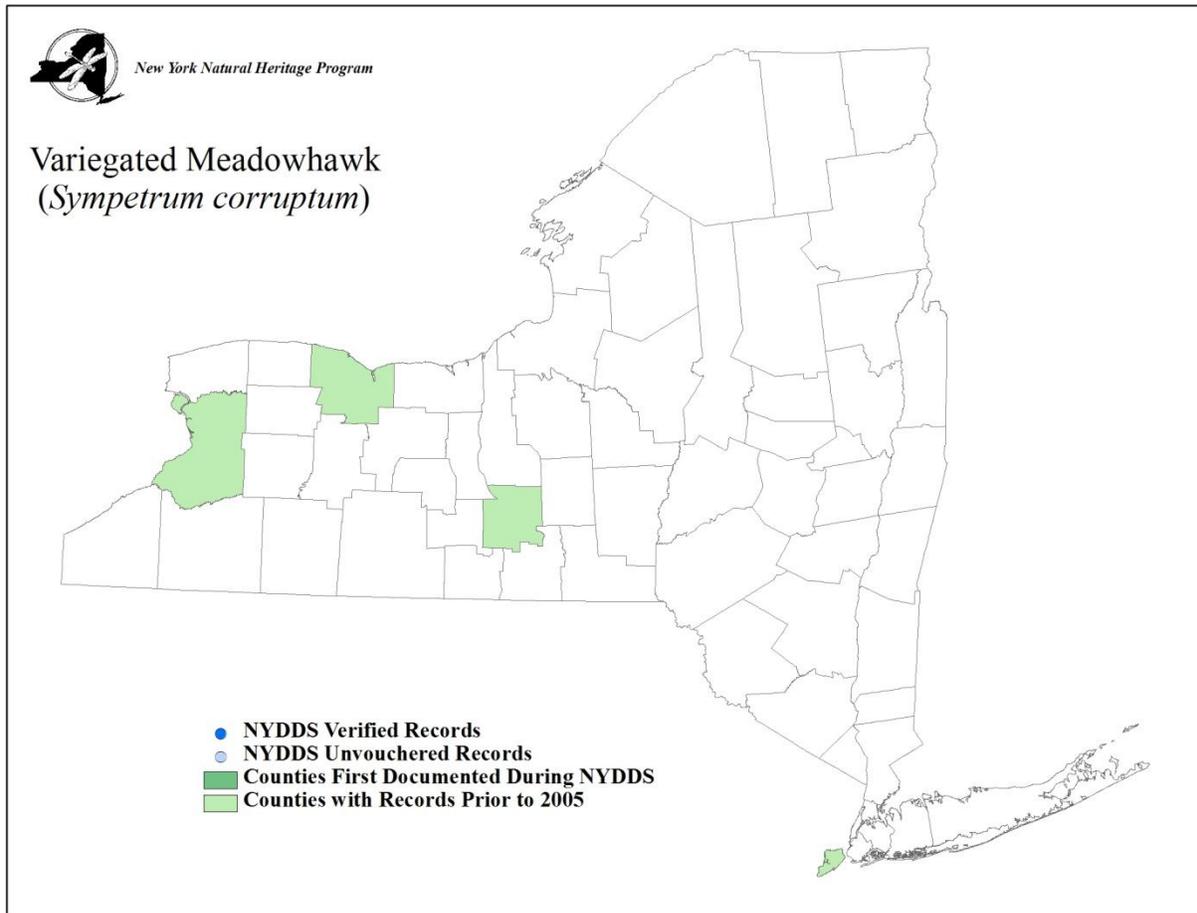
(Donnelly 2004d)



**LIBELLULIDAE**

**Variegated Meadowhawk (*Sympetrum corruptum*)**

**Pre-NYDDS Status: G5, SNR**



(Donnelly 2004d)

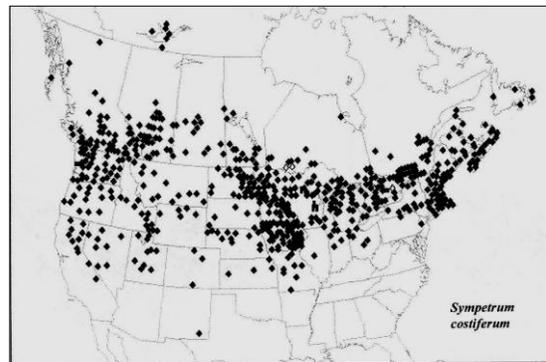
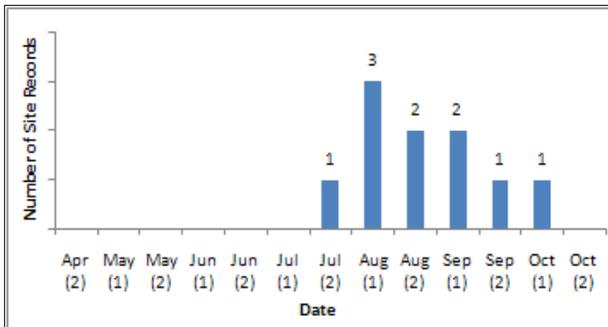
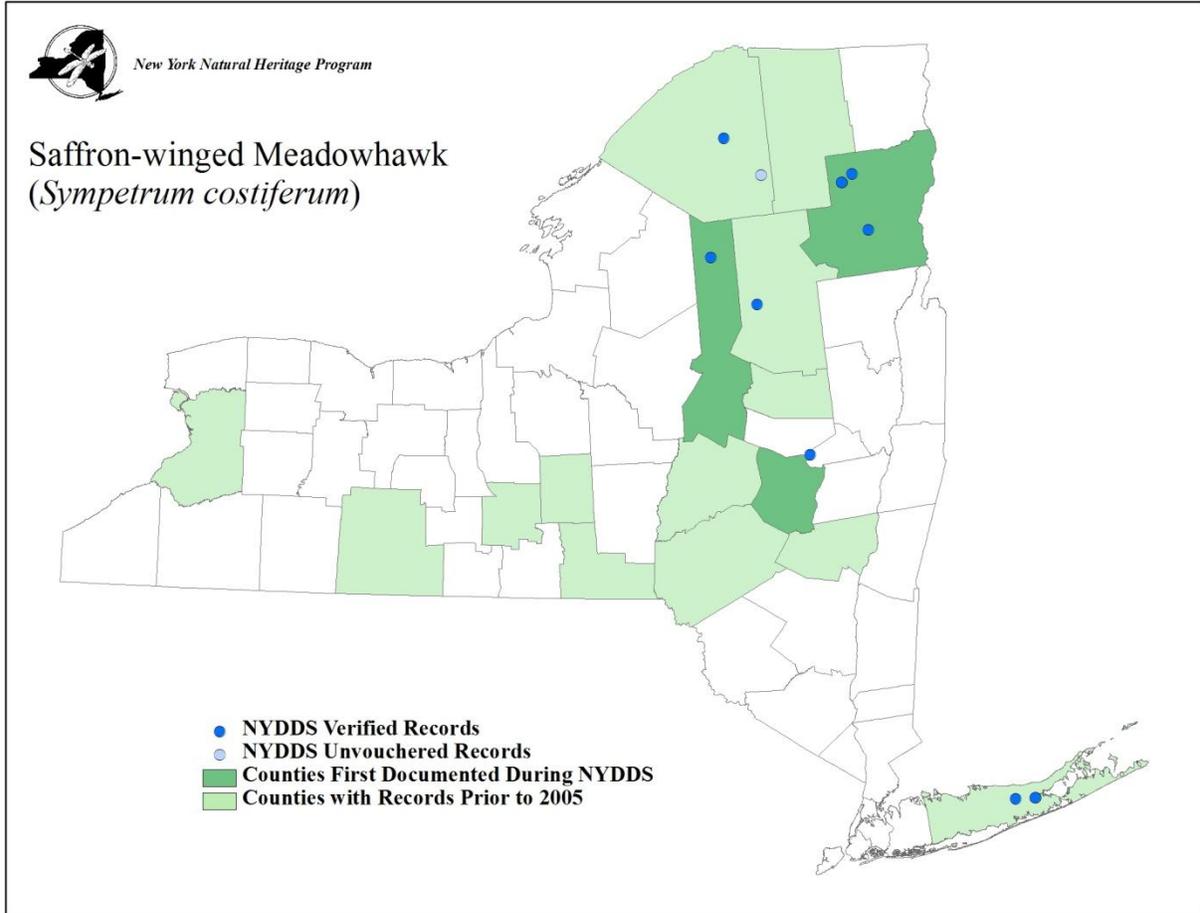


**LIBELLULIDAE**

**Saffron-winged Meadowhawk (*Sympetrum costiferum*)**

**Pre-NYDDS Status: G5, S4**

**Draft Revised Status: S3S4**



(Donnelly 2004d)



## LIBELLULIDAE

### Black Meadowhawk (*Sympetrum danae*)

Pre-NYDDS Status: G5, S2S3

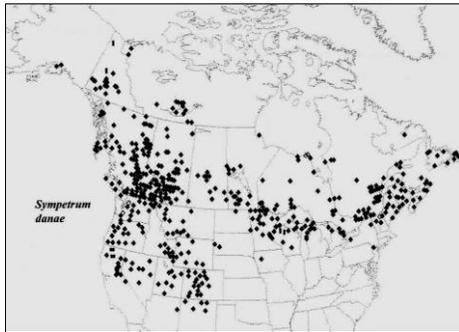
Draft Revised Status: S1

**Habitat Characteristics:** In the United Kingdom, Black Meadowhawk's are found in shallow, boggy ponds with vegetation, where they are known as Black Darters (Bradley 2006). They have also been shown to prefer oviposition sites with *Sphagnum* moss (Michiels & Dhondt 1990) where larvae will develop and live

(Nelson *et al.* 2000). In North America, they are known from wetland habitats including bogs, fens, and marshes, and less often, ponds and lakes and moving water (Dunkle 2000). In New York, habitats include a wet meadow dominated by grasses and shrubs with open water, two rivers (one near a field and the other near marshy habitat), and a pond located near a variety of habitat types (New York Natural Heritage Program 2010).



Linda Lapan



(Donnelly 2004d)

**Distribution and Inventory Needs:** *Sympetrum danae*'s range covers boreal habitats across North America and Eurasia (Pilgrim 2007). Recent genetic analysis has revealed that a subdivision exists for this species between the North American population and the Eurasian-Beringian population, where individuals from these two populations should be recognized as separate species (Pilgrim 2007). In North America, the species has been documented from Alaska east across Canada to Newfoundland, the western mountains of the U.S., where it is fairly common, and east across the northern

states, where it is less common (Dunkle 2000, Abbott 2010). In the Northeast, it is known from New Jersey, New York, Vermont, New Hampshire, and Maine (NatureServe 2009b, Abbott 2010). In New York, there are extant populations on the Chubb River where there is marshy habitat, a pond with marshy habitat and a stream nearby, a site on the West Branch of the Ausable River near a field, and a wetland near the Ausable (New York Natural Heritage Program 2010). There is an older record from a private fen in Genesee county (Donnelly 1999). Fen habitats should be searched for this species in western New York late in the season. In addition, it should be searched for not only in Adirondack bogs with *Sphagnum*, but also a variety of other habitat types including rivers and ponds. More effort by odonate enthusiasts is needed for late season species such as these. The efforts of a single volunteer revealed at least three new locations for *S. danae* in New York.

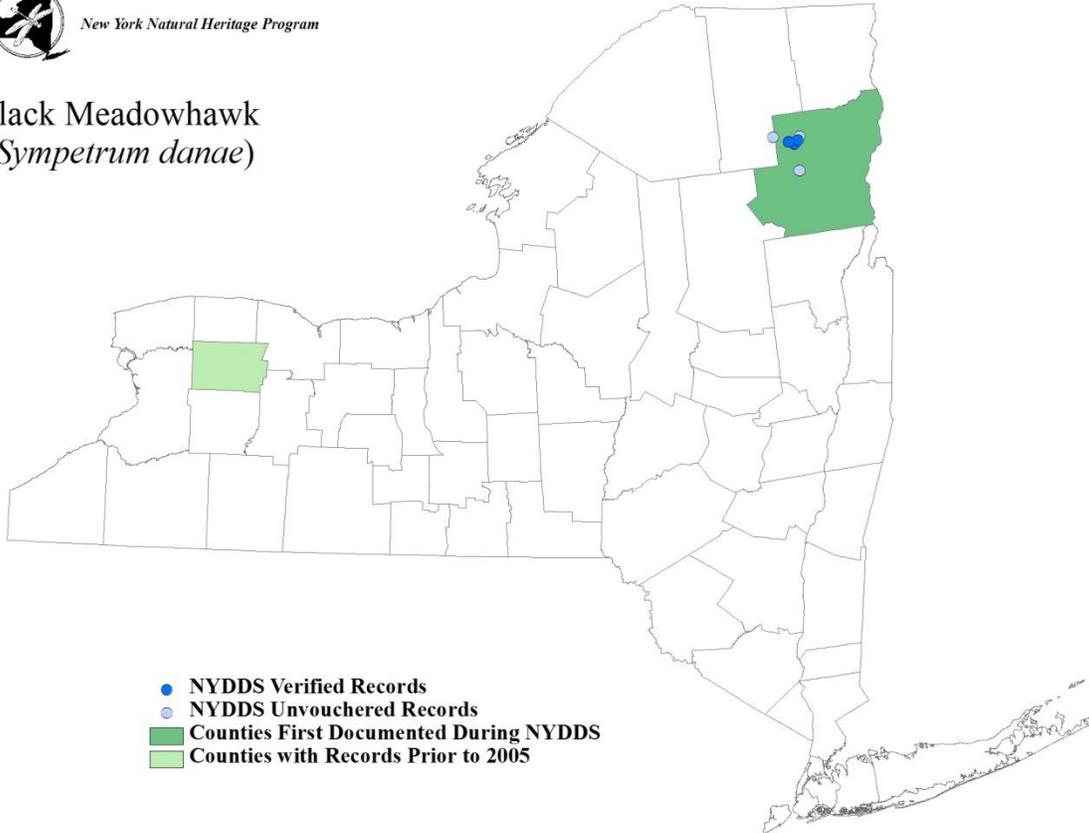
**Phenology:** Black Meadowhawk adults have been observed from mid-July into October in Wisconsin (Wisconsin Odonata Survey 2009). NYDDS and pre-NYDDS records have been documented from July 19 through September 11 (New York Natural Heritage Program 2010) and Dunkle (2000) notes the flight season as mid-June through mid-November for North America.



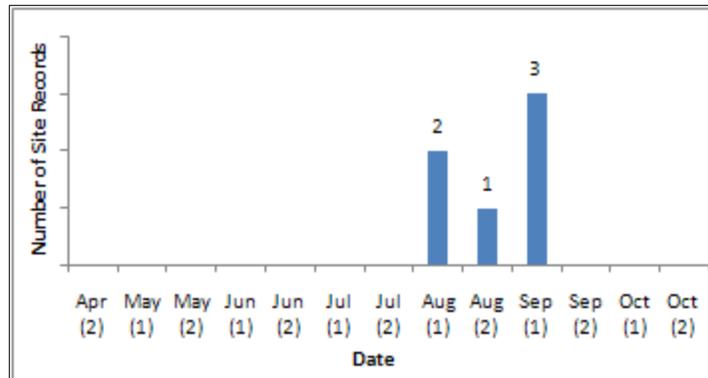


New York Natural Heritage Program

### Black Meadowhawk (*Sympetrum danae*)



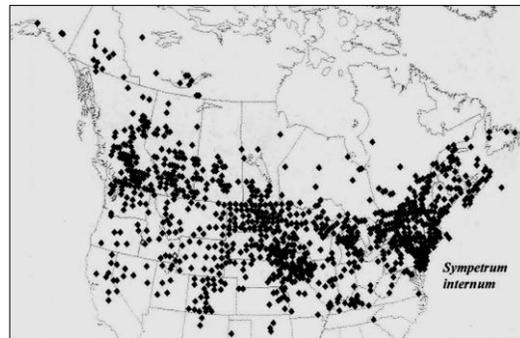
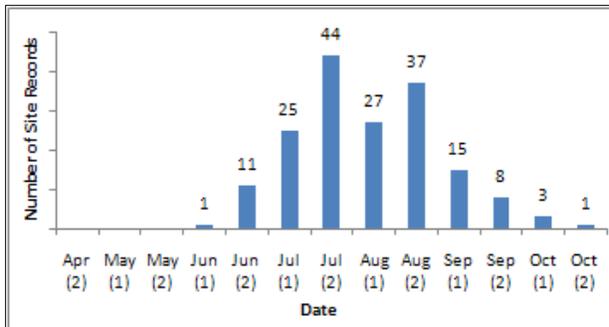
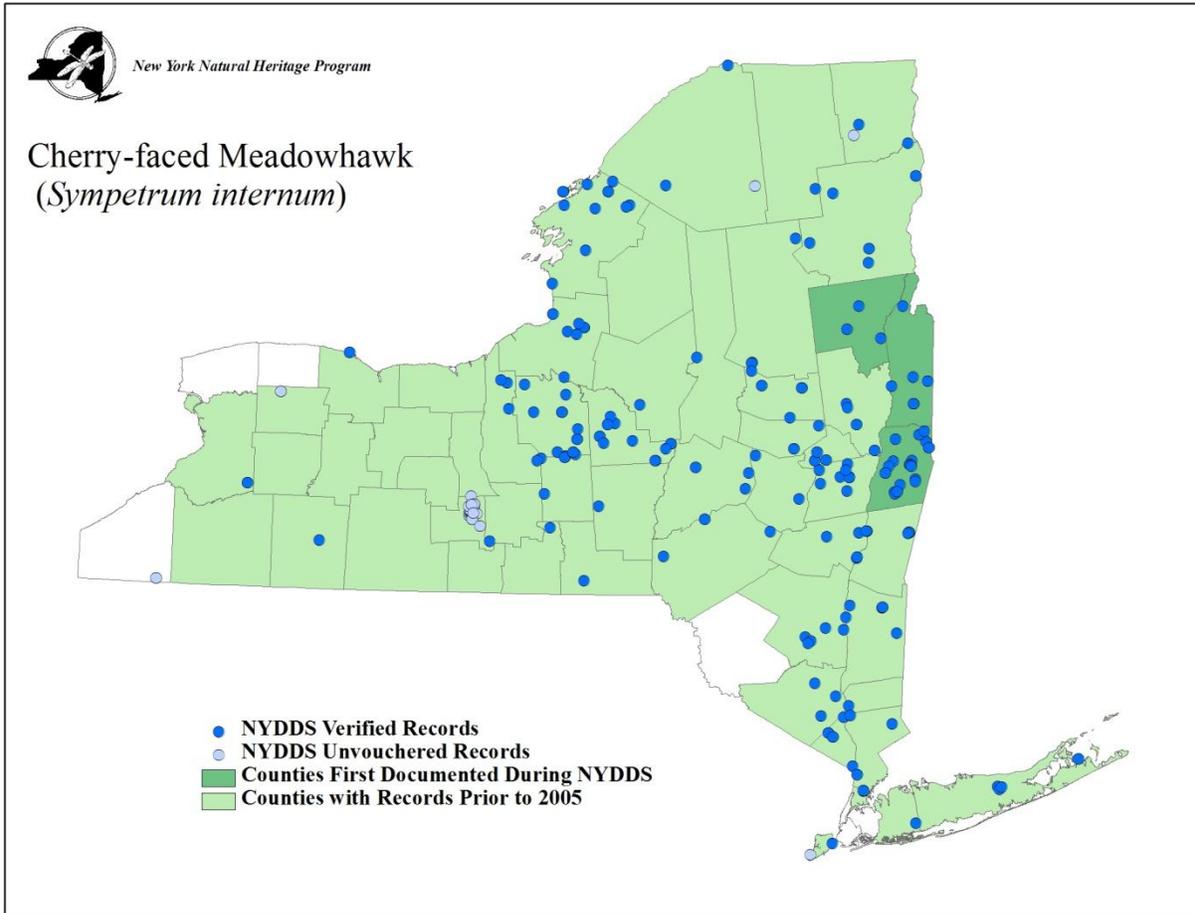
- NYDDS Verified Records
- NYDDS Unvouchered Records
- Counties First Documented During NYDDS
- Counties with Records Prior to 2005



**LIBELLULIDAE**

**Cherry-faced Meadowhawk (*Sympetrum internum*)**

Pre-NYDDS Status: G5, S5

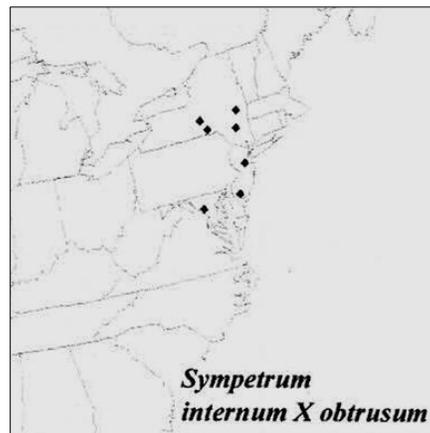
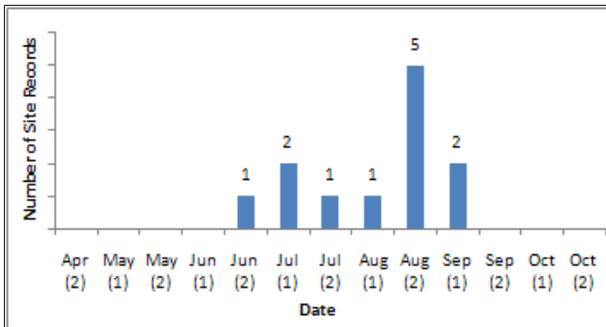
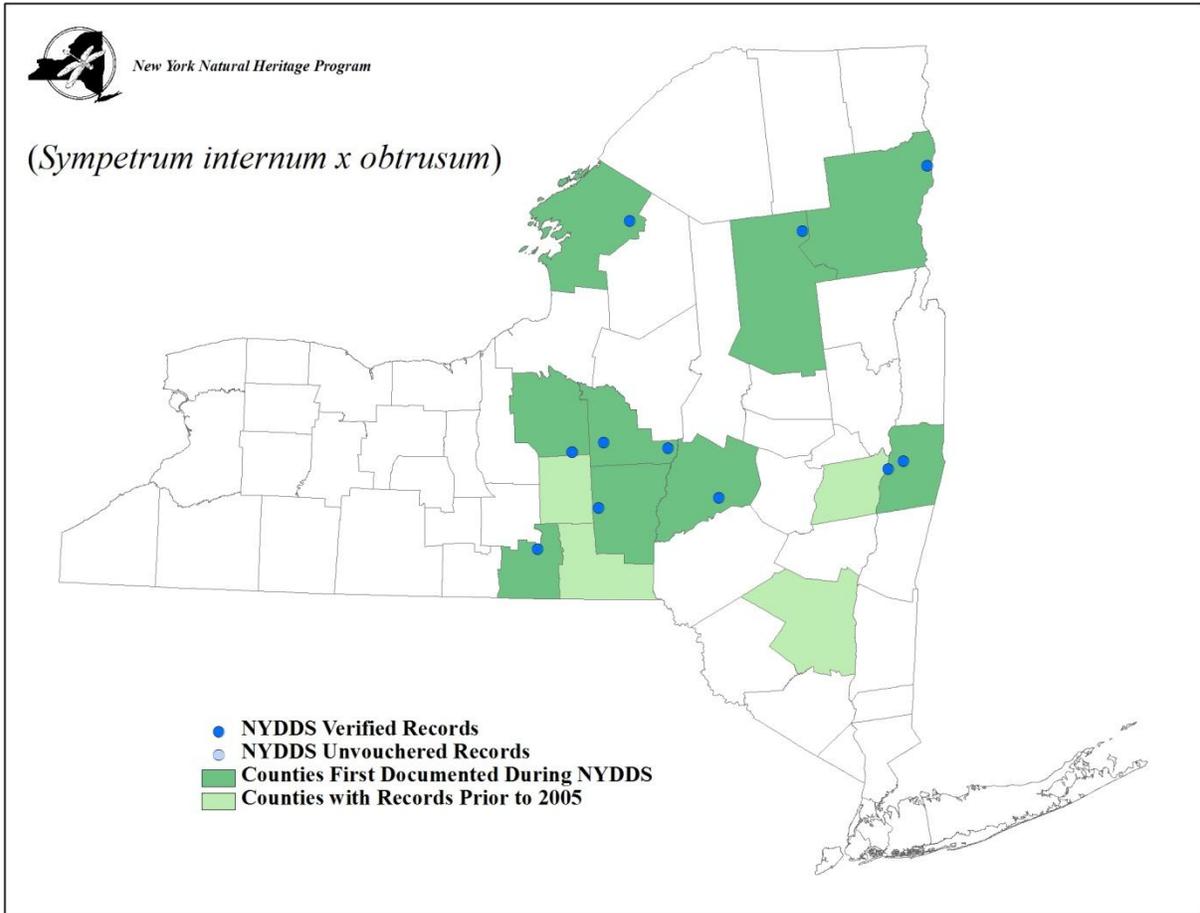


(Donnelly 2004d)



**LIBELLULIDAE**

**Hybrid (*Sympetrum internum x obtrusum*)**

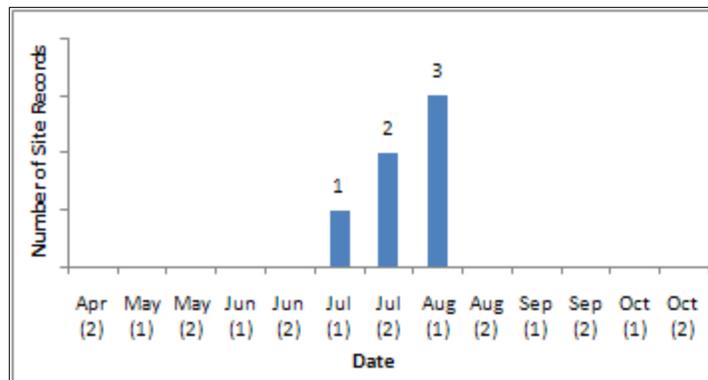
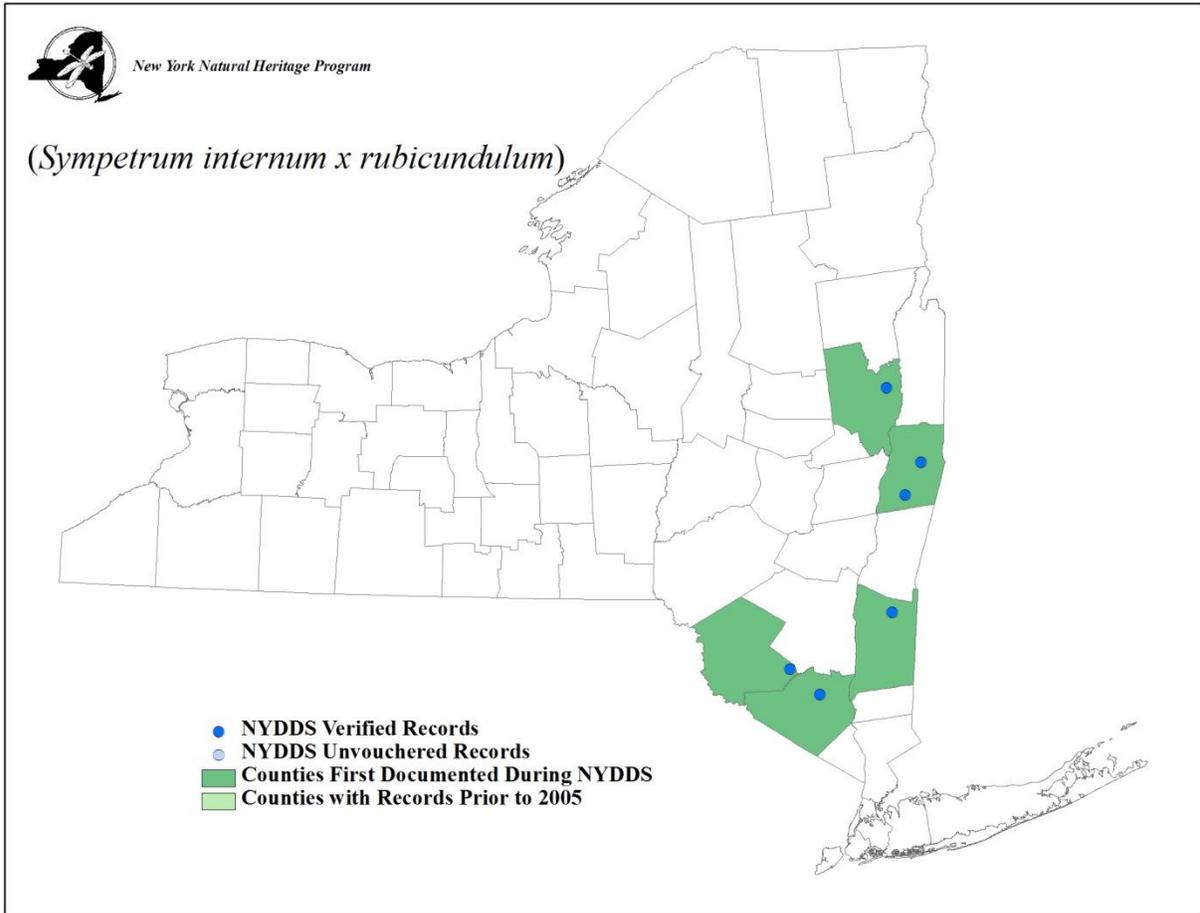


(Donnelly 2004d)



**LIBELLULIDAE**

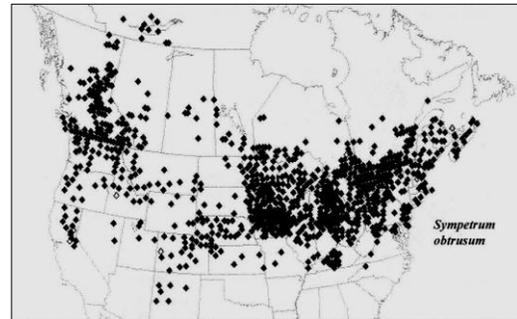
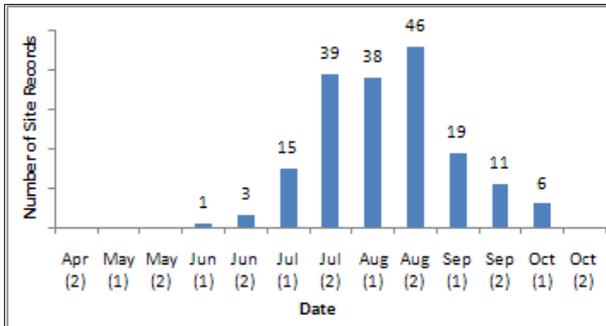
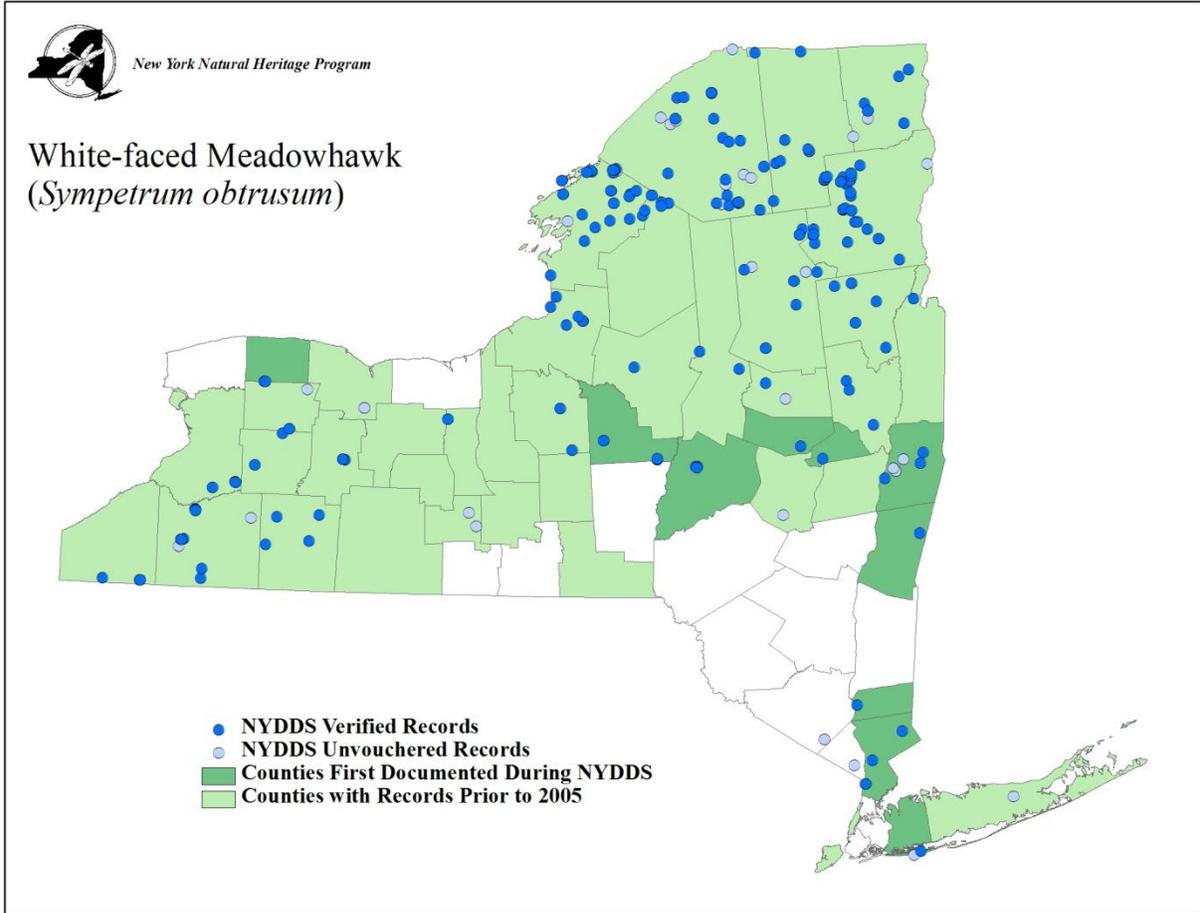
**Hybrid (*Sympetrum internum x rubicundulum*)**



**LIBELLULIDAE**

**White-faced Meadowhawk (*Sympetrum obtrusum*)**

Pre-NYDDS Status: G5, S4S5



(Donnelly 2004d)

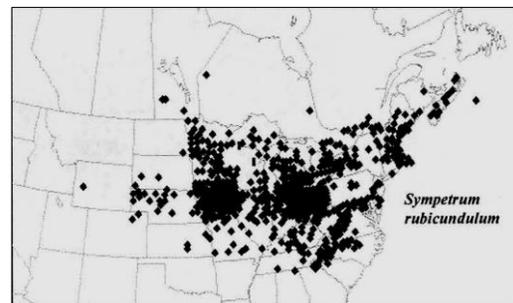
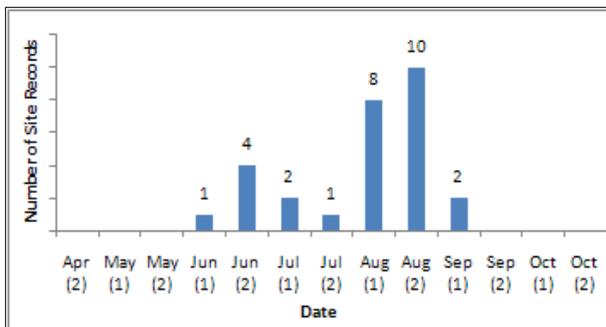
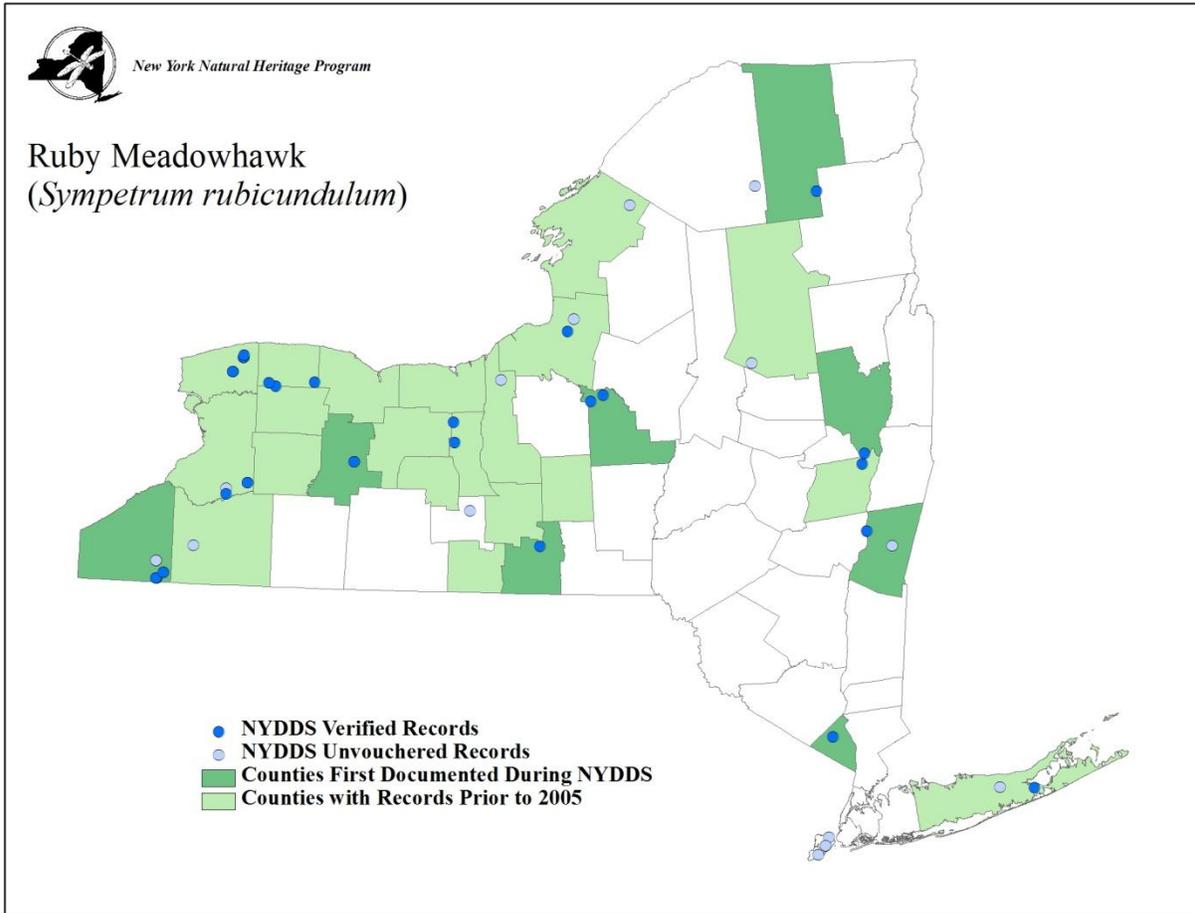


**LIBELLULIDAE**

**Ruby Meadowhawk (*Sympetrum rubicundulum*)**

**Pre-NYDDS Status: G5, S3**

**Draft Revised Status: S3**



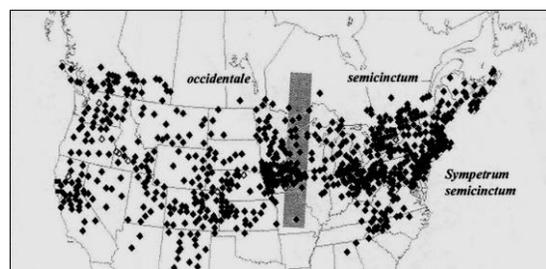
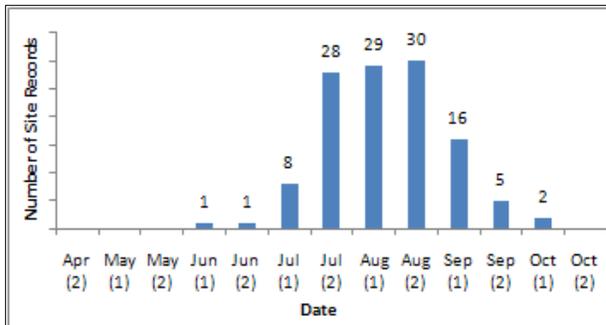
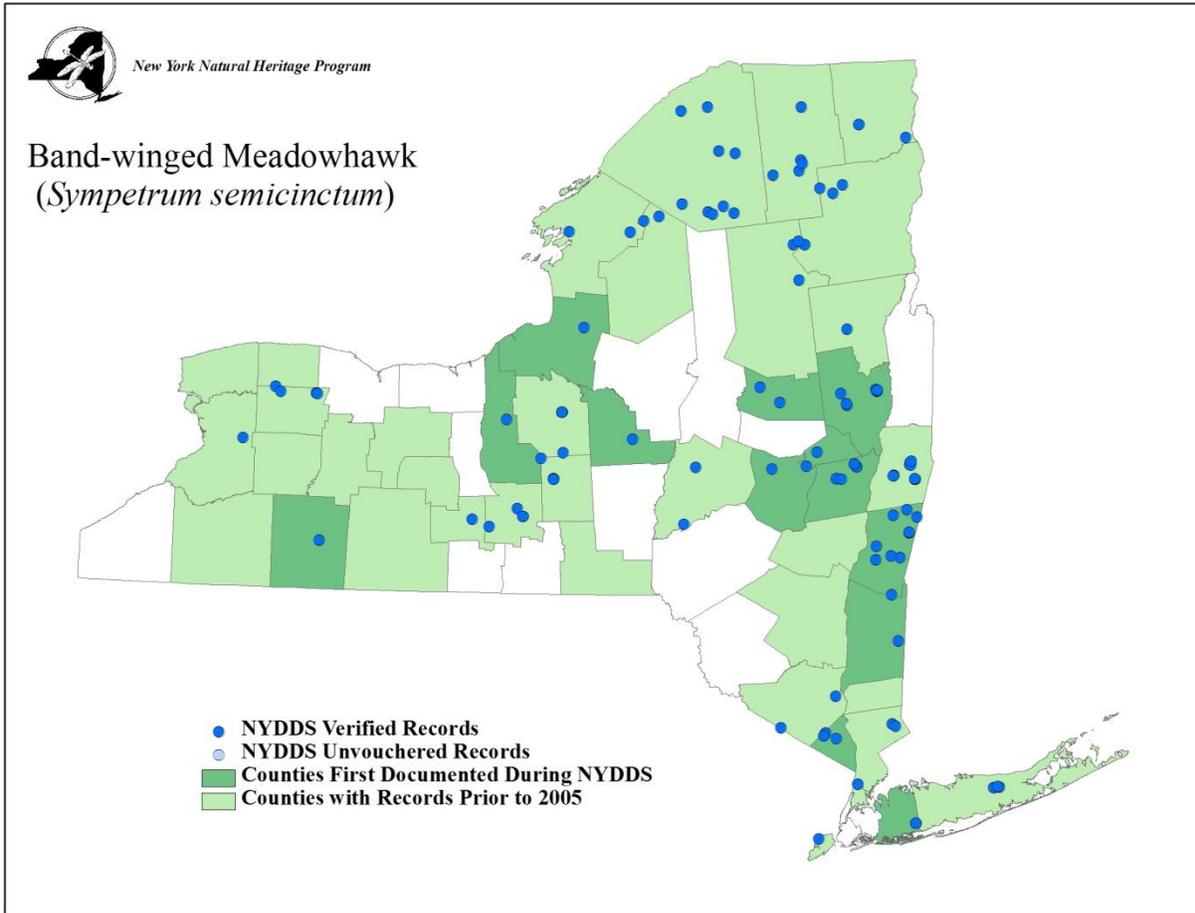
(Donnelly 2004d)



**LIBELLULIDAE**

**Band-winged Meadowhawk (*Sympetrum semicinatum*)**

Pre-NYDDS Status: G5, S4S5



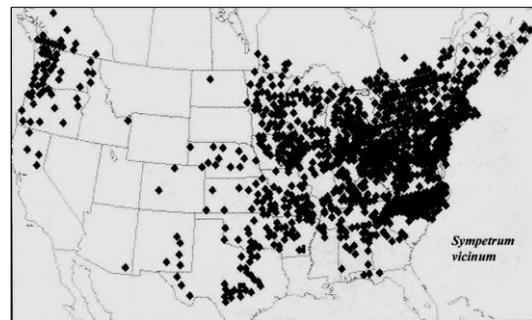
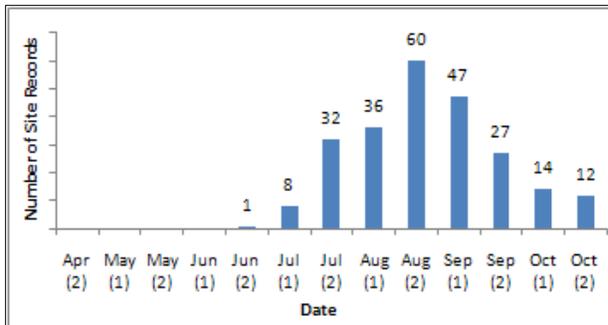
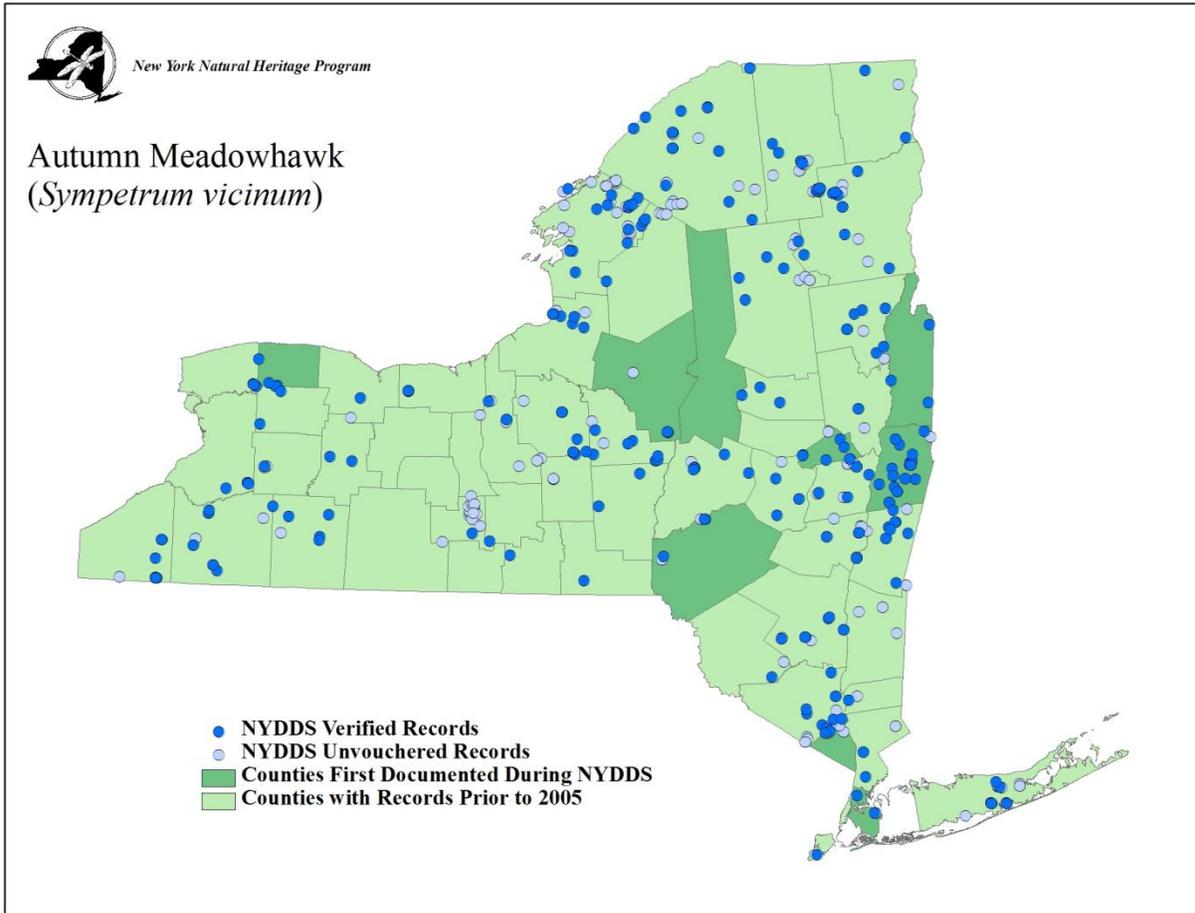
(Donnelly 2004d)



**LIBELLULIDAE**

**Autumn Meadowhawk (*Sympetrum vicinum*)**

**Pre-NYDDS Status: G5, S5**



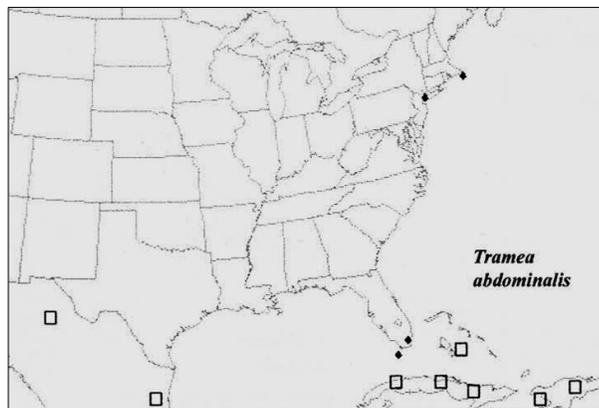
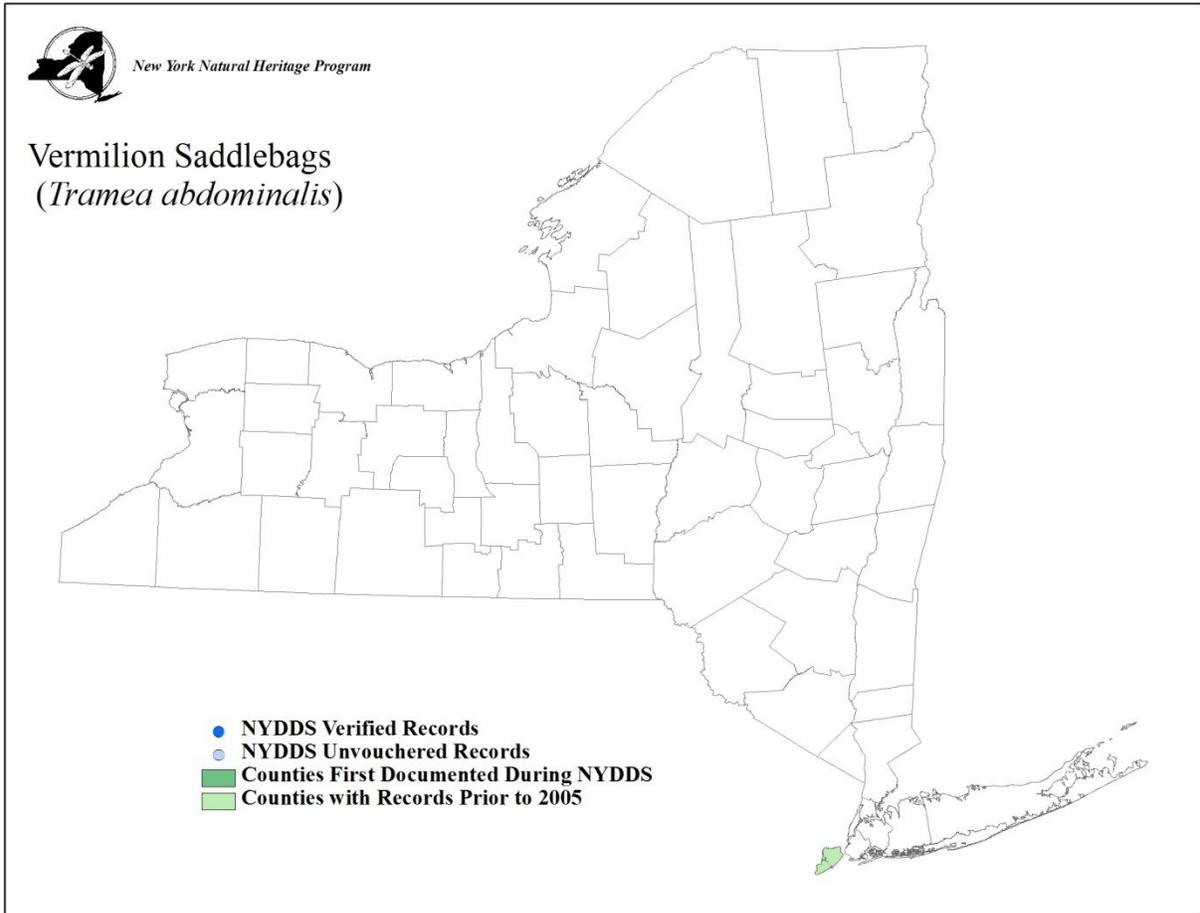
(Donnelly 2004d)



**LIBELLULIDAE**

**Vermillion Saddlebags (*Tramea abdominalis*)**

**Pre-NYDDS Status: G5, SNR**



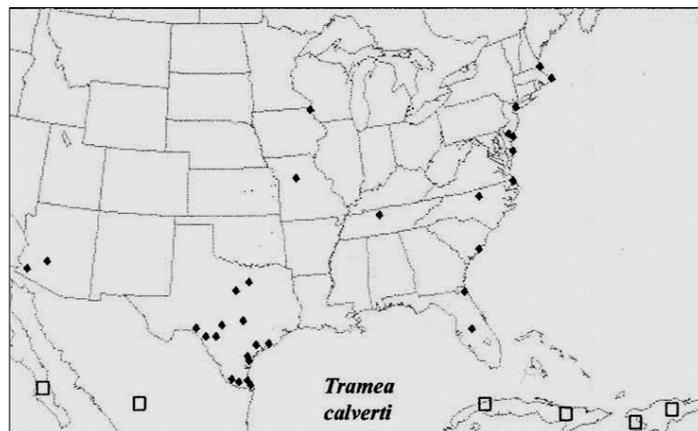
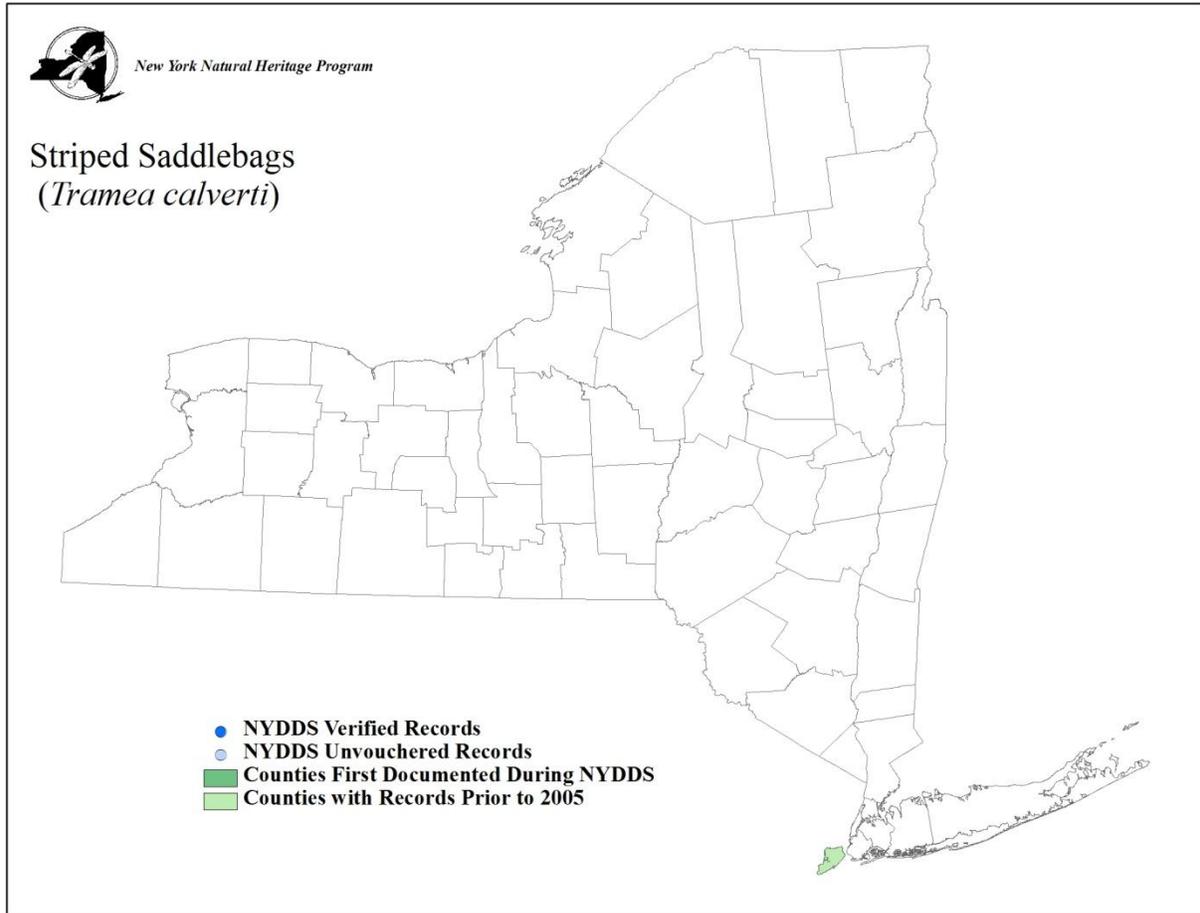
(Donnelly 2004d)



**LIBELLULIDAE**

**Striped Saddlebags (*Tramea calverti*)**

**Pre-NYDDS Status: G5, SNR**



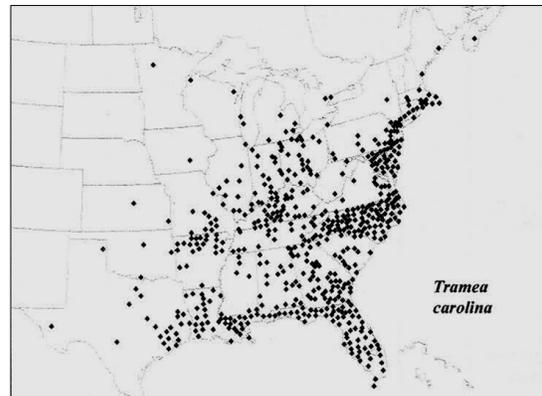
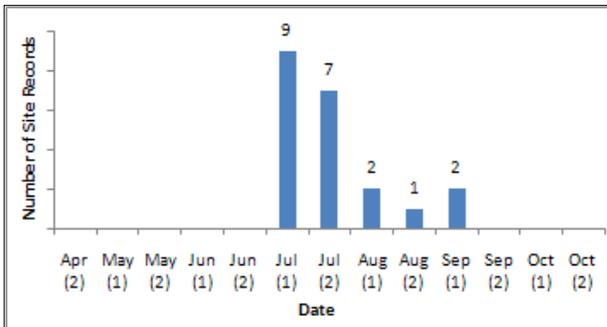
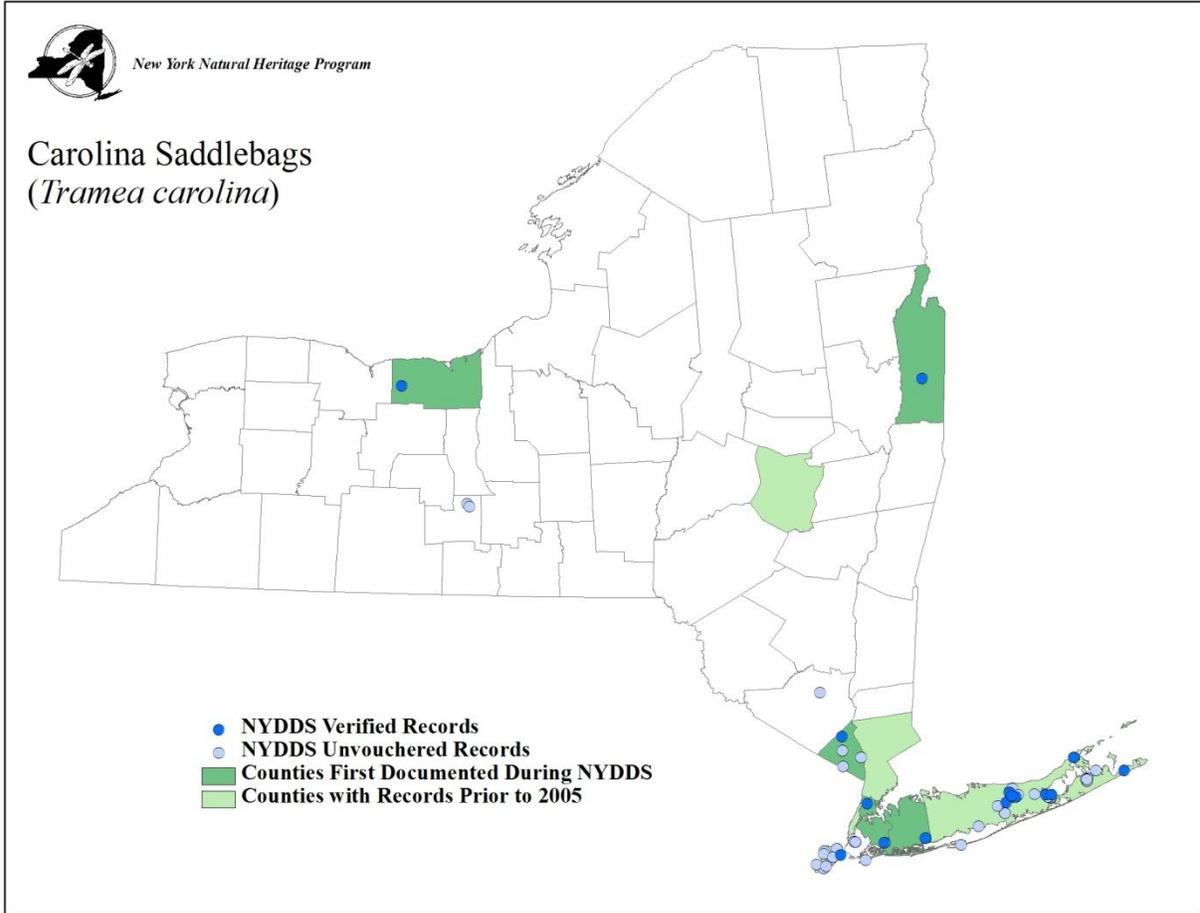
(Donnelly 2004d)



**LIBELLULIDAE**

**Carolina Saddlebags (*Tamea carolina*)**

**Pre-NYDDS Status: G5, S3S4**



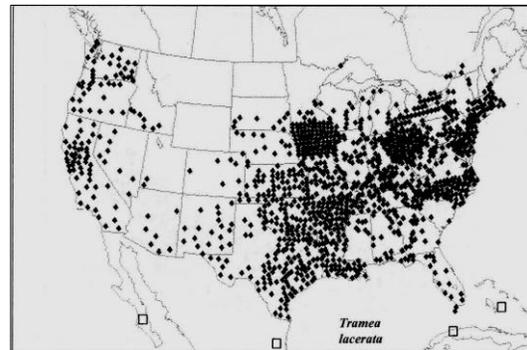
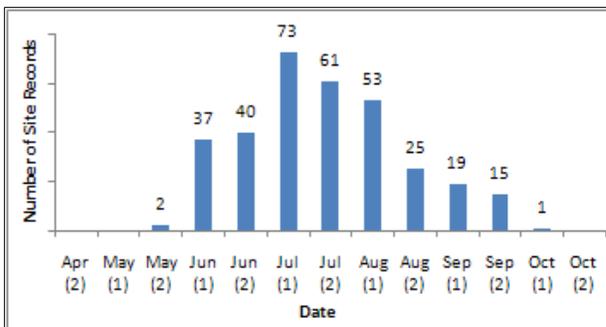
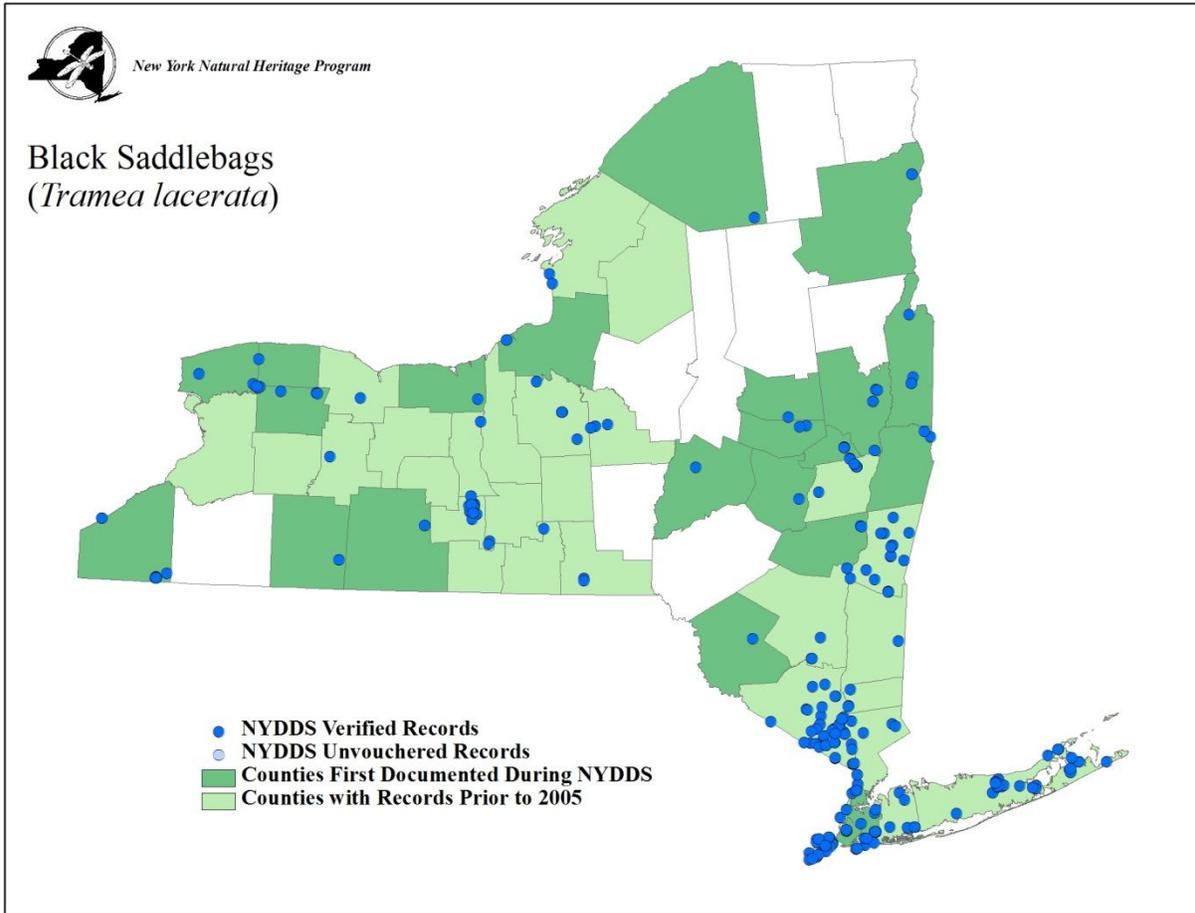
(Donnelly 2004d)



**LIBELLULIDAE**

**Black Saddlebags (*Tramea lacerata*)**

Pre-NYDDS Status: G5, S5



(Donnelly 2004d)



## State Ranking of Rare Odonate Species

### Species of Greatest Conservation Need

SGCNs are those species that have rare, imperiled, or unknown status (NYSDEC 2005). SGCNs include state and federally listed endangered and threatened species plus most species tracked in the NY Natural Heritage database.

### Active Inventory and Watch List

The NY Natural Heritage Program keeps two lists of rare animal species: the Active Inventory List and the Watch List. Species on the Active Inventory List are ones we currently track in our database; for the most part these are the most rare or most imperiled species in the state. Species on the Watch List are those that could become imperiled enough in the future to warrant active inventory, or are ones for which there is not enough data to determine their status. Species are moved between lists, or off the lists entirely, as available information warrants.

### Global and State Status Ranks

NY Natural Heritage's statewide inventory efforts revolve around lists of rare species known to occur, or to have occurred historically, in the state. These lists are based on a variety of sources including museum collections, scientific literature, information from state and local government agencies, regional and local experts, and data from neighboring states.

Each rare species is assigned a rank based on its rarity and vulnerability. Like all state Natural Heritage Programs, NY Natural Heritage's ranking system assesses rarity at two geographic scales: global and state. The global rarity rank (G-rank) reflects the status of a species throughout its range, whereas the state rarity rank (S-rank) indicates its status within New York. Global ranks are maintained and updated by NatureServe, which coordinates the network of Natural Heritage programs. Both global and state ranks are usually based on the range of the species, the number of occurrences, the viability of the occurrences, short- and long-term trends, and the vulnerability of the species around the globe or across the state. As new data become available, the ranks may be revised to reflect the most current information. Subspecific taxa are also assigned a taxon rank that indicates the subspecies' rarity rank throughout its range.

For the most part, global and state ranks follow a straightforward scale of 1 (rarest/most imperiled) to 5 (common/secure), as follows:

- G1, S1** Critically imperiled because of rarity (5 or fewer occurrences, or few remaining acres or miles of stream) or factors making it especially vulnerable to extinction rangewide (global) or in New York (state)
- G2, S2** Imperiled because of rarity (6-20 occurrences, or few remaining acres or miles of stream) or factors demonstrably making it very vulnerable to extinction (global) or extirpation from New York (state)
- G3, S3** Either uncommon or local, typically with 21 to 100 occurrences, limited acreage, or miles of stream rangewide (global) or in New York (state)



**G4, S4** Apparently secure rangewide (global) or in New York (state)

**G5, S5** Demonstrably secure, though it may be quite rare in parts of its range

Note that combination (or “range”) ranks are possible (e.g., S1S2, S2S3). These ranks reflect uncertainty in the information available such that it could not be determined whether one or the other rank was appropriate. They do not indicate a value in between the two numbers.

There are some additional codes:

**GH, SH** Only known historically rangewide (global) or not reported in New York the last 20 years

**GX, SX** Apparently extinct (global) or extirpated from New York (state)

**GU, SU** Lack of information or substantial conflicting information about status or trends makes ranking infeasible at this time

**SNA** A visitor to the state but not a regular occupant (such as a bird or insect migrating through the state), or a species that is predicted to occur in NY but that has not been found.

**SNR** No effort has yet been made to rank the species

Codes sometimes have qualifiers attached:

**T1, T2, etc.**

These ranks, which like global and state ranks run from 1 (rarest/most imperiled) to 5 (common/secure), are attached to global ranks to indicate the status of a subspecies or variety

**Q** Indicates that the species, subspecies, or variety is in taxonomic dispute

**?** Indicates that the state or global rank is uncertain and more information is needed

**N** Indicates the migratory status of a migratory species when it is not breeding in New York (for example, populations that are overwintering in the state)

**B** Indicates the state status of a migratory species when it has breeding populations in NY



## Re-Ranking Based on NYDDS Data

We calculated S-ranks for rare odonate species using NatureServe's Element Rank Calculator, version 2.0 (NatureServe 2009a). This methodology for assigning ranks is based on a process for assessing conservation status developed by NatureServe scientists (Faber-Langendoen *et al.* 2009, Master *et al.* 2009) that is closely related to the International Union for Conservation of Nature (IUCN) system. The Rank Calculator itself is a spreadsheet into which a knowledgeable biologist evaluating the rank plugs information on rarity, trends, and threats, each of which has several components (e.g., range extent, area of occupancy, population size, number of occurrences, short-term trend, long-term trend, and threat impact [itself calculated through a series of steps]). The Rank Calculator then cranks through a series of algorithms based on pre-defined or user-defined parameter weights to generate an S-rank. Because some data, population size for instance, are unavailable for many taxa, the calculator was built to accommodate missing data and to accept a great deal of uncertainty in the inputted values.

For odonates, rank calculations were based on range extent, area of occupancy, number of occurrences, long-term trend, and threat impact. Population size was not available. Generally, long-term trend was estimated based on a comparison between Donnelly's (2004d) pre-NYDDS list and the NYDDS data by county. We assumed long-term trends to be relatively stable if approximately the same number of counties were recorded pre-NYDDS and during the Survey. If this was not the case--for example, if 15 counties were documented prior to the Survey, but 10 during--then it was possible that the range had declined by as much as 33% (and range change is commonly accompanied by a change in population size; [Gaston *et al.* 2000]), or that the counties were still occupied but missed, so the long-term trends include a range of uncertainty from stable to declining by 33%. A short-term trend was generally not used for the calculations, as there was not enough information to make this estimate.

The number of occurrences was based on location information from both the NY Natural Heritage Element Occurrence Database (Biotics) as well as NYDDS data and rank specification information from NatureServe (2009b). We used NatureServe's "separation distance" for suitable habitat to determine what constituted a separate Element Occurrence for each species (NatureServe 2009b). In many cases, the calculation was made based on both the actual number of occurrences and an estimate of possible future occurrences. We typically estimated threats using the threats worksheet within the Rank Calculator, which calculated an overall threat impact based on the scope and severity of individual threats (such as residential development of habitats or degradation of water quality from herbicide use) to the species at known locations (NatureServe 2009a). Generally, estimated impacts to odonates in their aquatic breeding habitats calculated as either medium or high threat impact. Range extent and area of occupancy were estimated using NYDDS data, Biotics location information, and recent (1980 and later) pre-NYDDS information. The area of occupancy was estimated based on the number of occurrences within the range extent and whether the species was primarily a species of lentic (standing water) or lotic (flowing water) habitats. All current Active Inventory and Watch List odonate species were ranked, as well as any species with few NYDDS records. The table below outlines these species, and shows a draft revised rank based on their rarity in the state (Table 5). These ranks have not yet been fully evaluated and should be treated as preliminary; a full evaluation of the ranks for Heritage-tracked species will be reviewed by NY Natural Heritage staff and outside experts at a later date. Note that in many cases, the rank did not change.



Table 5. State ranks for rare odonate species are summarized below and include global and current state ranks (NatureServe 2009b). Species of Greatest Conservation Need (SGCN) are in **bold**. Species that had few records during the NYDDS were run through Nature Serve’s Rank Calculator (NatureServe 2009a) to obtain a suggested rank revision. Species new to the state are highlighted with an “\*”. All SGCNs are either on the NY Natural Heritage Active Inventory List (A) or the Watch List (W). Those species previously known to occur in New York, but not found during NYDDS were noted with a “#”.

Scientific Name	Common Name	Heritage List	Global Rank	Current State Rank	DRAFT Revised Rank
<i>Aeshna clepsydra</i>	Mottled Darner	A	G4	S2S3	S4
<i>Aeshna septentrionalis</i>	Azure Darner	A	G5	SNR	SNR
<i>Aeshna sitchensis</i> *	Zigzag Darner		G5	SU	S1
<b><i>Aeshna subarctica</i></b>	<b>Subarctic Darner</b>	<b>A</b>	<b>G5</b>	<b>S1</b>	<b>S1</b>
<b><i>Anax longipes</i></b>	<b>Comet Darner</b>	<b>A</b>	<b>G5</b>	<b>S2</b>	<b>S2S3</b>
<i>Archilestes grandis</i>	Great Spreadwing		G5	SNA	S1
<b><i>Argia bipunctulata</i> #</b>	<b>Seepage Dancer</b>	<b>A</b>	<b>G4</b>	<b>SH</b>	<b>SH</b>
<i>Argia apicalis</i>	Blue-fronted Dancer	W	G5	S3	S3
<b><i>Argia tibialis</i></b>	<b>Blue-tipped Dancer</b>	<b>A</b>	<b>G5</b>	<b>S2</b>	<b>S3</b>
<i>Argia translata</i>	Dusky Dancer	W	G5	S3	S1
<i>Argomphus cornutus</i> *	Horned Clubtail		G4	SNR	S1
<i>Brachymesia gravida</i> *	Four-spotted Pennant		G5	SNR	S1
<b><i>Calopteryx angustipennis</i> #</b>	<b>Appalachian Jewelwing</b>	<b>A</b>	<b>G4</b>	<b>SH</b>	<b>SH</b>
<b><i>Calopteryx dimidiata</i> #</b>	<b>Sparkling Jewelwing</b>	<b>A</b>	<b>G5</b>	<b>SH</b>	<b>SH</b>
<i>Calopteryx amata</i>	Superb Jewelwing	W	G4	S3	S3
<i>Celithemis fasciata</i>	Banded Pennant	W	G5	SNR	S3
<i>Celithemis martha</i>	Martha’s Pennant	W	G4	S3	S2
<i>Celithemis verna</i> *	Double-ringed Pennant		G5	SNR	S1
<b><i>Coenagrion interrogatum</i> #</b>	<b>Subarctic Bluet</b>	<b>W</b>	<b>G5</b>	<b>S1S3</b>	<b>S1</b>
<i>Coenagrion resolutum</i>	Taiga Bluet		G5	S4	S3
<b><i>Cordulegaster erronea</i></b>	<b>Tiger Spiketail</b>	<b>A</b>	<b>G4</b>	<b>S1</b>	<b>S1</b>
<b><i>Cordulegaster obliqua</i></b>	<b>Arrowhead Spiketail</b>	<b>A</b>	<b>G4</b>	<b>S2S3</b>	<b>S3</b>
<i>Dorocordulia lepida</i>	Petite Emerald		G5	S4S5	S3
<i>Enallagma basidens</i>	Double-striped Bluet		G5	SNR	S3
<i>Enallagma boreale</i>	Boreal Bluet		G5	S4	S3
<i>Enallagma divagans</i>	Turquoise Bluet		G5	S3S4	S3
<i>Enallagma doubledayi</i>	Atlantic Bluet		G5	S4	S1S2
<i>Enallagma durum</i>	Big Bluet	W	G5	S3	S3
<b><i>Enallagma laterale</i></b>	<b>New England Bluet</b>	<b>A</b>	<b>G3G4</b>	<b>S2</b>	<b>S3</b>
<b><i>Enallagma minusculum</i></b>	<b>Little Bluet</b>	<b>A, Threatened</b>	<b>G3G4</b>	<b>S1</b>	<b>S1</b>



Scientific Name	Common Name	Heritage List	Global Rank	Current State Rank	DRAFT Revised Rank
<i>Enallagma pictum</i>	Scarlet Bluet	A, Threatened	G3	S1	S2
<i>Enallagma recurvatum</i>	Pine Barrens Bluet	A, Threatened	G3	S1S2	S1
<i>Enallagma vernale</i>	Vernal Bluet	W	G4	SU	S3
<i>Enallagma weewa</i>	Blackwater Bluet	A	G5	S1	S1
<i>Epiaschna heros</i>	Swamp Darner		G5	S4S5	S3
<i>Epithea semiaquea</i>	Mantled Baskettail	A	G5	SH	S2
<i>Epithea spinigera</i>	Spiny Baskettail		G5	S4S5	S3
<i>Erythrodiplax berenice</i>	Seaside Dragonlet		G5	S3S4	S2
<i>Gomphaeshna antilope</i>	Taper-tailed Darner		G4	SNA	S1?
<i>Gomphus abbreviatus</i>	Spine-Crowned Clubtail	A	G3G4	S2S3	S1
<i>Gomphus adelphus</i>	Mustached Clubtail	W	G4	S3S4	S2S3
<i>Gomphus descriptus</i>	Harpoon Clubtail	W	G4	S3S4	S3
<i>Gomphus fraternus</i>	Midland Clubtail	A	G5	S1S3	S3
<i>Gomphus quadricolor</i>	Rapids Clubtail	A	G3G4	S1S2	S3
<i>Gomphus rogersi</i>	Sable Clubtail	A	G4	S1	S1
<i>Gomphus septima</i>	Septima's Clubtail	A, Special Concern	G2	S1	S1
<i>Gomphus vastus</i>	Cobra Clubtail	A	G5	SH	S1
<i>Gomphus ventricosus</i>	Skillet Clubtail	A	G3	SH	S1
<i>Gomphus viridifrons</i> #	Green-faced Clubtail	A	G3	S1	S1
<i>Helocordulia uhleri</i>	Uhler's Sundragon		G5	S4S5	S3
<i>Hetaerina americana</i>	American Rubyspot	W	G5	S3	S3
<i>Ischnura hastata</i>	Citrine Forktail	W	G5	S3	S3
<i>Ischnura kellicotti</i>	Lilypad Forktail	W	G5	S3	S3
<i>Ischnura ramburii</i>	Rambur's Forktail	A	G3	S2	S2S3
<i>Ladona deplanata</i>	Blue Corporal		G5	S4	S2S3
<i>Ladona exusta</i>	White Corporal		G4	S4	S3
<i>Lanthus parvulus</i>	Northern Pygmy Clubtail	W	G4	S3S4	S3
<i>Lanthus vernalis</i>	Southern Pygmy Clubtail	W	G4	SU	S1
<i>Lestes australis</i>	Southern Spreadwing		G5	S3S4	S2S3
<i>Lestes dryas</i>	Emerald Spreadwing		G5	S4	S3
<i>Lestes unguiculatus</i>	Lyre-tipped Emerald		G5	S3S4	S2S3
<i>Libellula auripennis</i>	Golden-winged Skimmer	A	G5	S1	S1S2
<i>Libellula axilena</i>	Bar-winged Skimmer	W	G5	SNA	S1?
<i>Libellula flavida</i>	Yellow-sided Skimmer	A	G5	S1	S1



Scientific Name	Common Name	Heritage List	Global Rank	Current State Rank	DRAFT Revised Rank
<i>Libellula needhami</i>	Needham's Skimmer	A	G5	S2S3	S3
<i>Libellula vibrans</i>	Great Blue Skimmer		G5	S3S4	S3
<i>Nannothemis bella</i>	Elfin Skimmer		G4	S4	S3
<i>Nasiaeshna pentacantha</i>	Cyrano Darner	W	G5	S3	S2S3
<i>Nehalennia integricollis</i>	Southern Sprite	A, Special Concern	G5	S1	S1
<i>Neurocordulia michaeli</i> *	Broad-tailed Shadowdragon		G3G4	SNR	S1
<i>Neurocordulia obsoleta</i>	Umber Shadowdragon	W	G5	SU	S1
<i>Neurocordulia yamaskanensis</i>	Stygian Shadowdragon	W	G5	SU	S3
<i>Ophiogomphus anomalus</i>	Extra-striped Snaketail	A, Special Concern	G4	S1	S2S3
<i>Ophiogomphus aspersus</i>	Brook Snaketail	A	G3G4	S2	S3
<i>Ophiogomphus carolus</i>	Riffle Snaketail		G5	S4	S2S3
<i>Ophiogomphus colubrinus</i> #	Boreal Snaketail	A	G5	S1	S1
<i>Ophiogomphus howei</i>	Pygmy Snaketail	A, Special Concern	G3	S1	S1
<i>Ophiogomphus mainensis</i>	Maine Snaketail	W	G4	S3	S3
<i>Progomphus obscurus</i>	Common Sanddragon	A, Special Concern	G5	S1	S1
<i>Rhionaeschna mutata</i>	Spatterdock Darner	A	G4	S2	S2S3
<i>Somatochlora albicincta</i> #	Ringed Emerald	A	G5	SH	SH
<i>Somatochlora cingulata</i>	Lake Emerald	A	G5	S1	S1
<i>Somatochlora elongata</i>	Ski-tailed Emerald		G	S4	S3S4
<i>Somatochlora forcipata</i>	Forcinate Emerald	A	G5	S1	S1S3
<i>Somatochlora franklini</i>	Delicate Emerald		G5	SNR	S1
<i>Somatochlora hineana</i>	Hine's Emerald	A, Federally Endangered	G2G3	SNA	SNA
<i>Somatochlora incurvata</i>	Incurvate Emerald	A	G5	S1	S1S3
<i>Somatochlora kennedyi</i> #	Kennedy's Emerald	A	G5	SNA	SNA
<i>Somatochlora linearis</i>	Mocha Emerald	A	G5	S2S3	S1
<i>Somatochlora minor</i>	Ocellated Emerald	A	G5	S2S3	S1S3
<i>Somatochlora walshii</i>	Brush-tipped Emerald	W	G5	S3	S3
<i>Somatochlora williamsoni</i>	Williamson's Emerald		G5	S3S4	S3S4
<i>Stylurus amnicola</i> #	Riverine Clubtail	A	G4	SH	SH



Scientific Name	Common Name	Heritage List	Global Rank	Current State Rank	DRAFT Revised Rank
<i>Stylurus notatus</i> #	Elusive Clubtail	A	G3	SH	SH
<i>Stylurus plagiatus</i>	Russet-tipped Clubtail	A	G5	S1	S1
<i>Stylurus scudderi</i>	Zebra Clubtail	W	G4	S3	S3S4
<i>Stylurus spiniceps</i>	Arrow Clubtail	W	G5	S3	S3
<i>Sympetrum costiferum</i>	Saffron-winged Meadowhawk		G5	S4	S3S4
<i>Sympetrum danae</i>	Black Meadowhawk	A	G5	S2S3	S1
<i>Sympetrum rubicundulum</i>	Ruby Meadowhawk	W	G5	S3	S3
<i>Tachopteryx thoreyi</i>	Gray Petaltail	A, Special Concern	G4	S2	S2
<i>Williamsonia fletcheri</i>	Ebony Boghaunter	A	G4	S1	S1
<i>Williamsonia lintneri</i> #	Ringed Boghaunter	A	G3	SH	SH

The S-rank is a primary, but not the only, determinant of which species are tracked in Biotics. We track most species with a rank of S2S3 or higher (more imperiled), and some species with a rank of S3, if warranted. Currently, there are 51 species on the NY Natural Heritage Active Inventory List and 24 on the Watch List. If the above draft rank revisions from the Rank Calculator are instituted after review, 19 species could move onto the Active List, and nine could move from the Active List to the Watch List. This would bring the number of actively tracked species to 50, approximately its current number. The Watch List would see a greater change, as 23 odonates not currently on either list would be added, 16 current Watch list species would remain on the list, and about 8 current Watch List species would move off the list, for a total of 31 Watch List species. Out of our state total of 194 odonate species, 26% of these may be critically imperiled (S1) or imperiled (S2). All of these species would be on the Active List and should be strong candidates for official state listing as Threatened or Endangered species.

A high propensity of clubtail (lotic habitats) and emerald (mainly bog or fen habitats) taxa are SGCNs in New York. Over 50% of the *Gomphus*, *Ophiogomphus*, *Stylurus*, and *Somatochlora* species known to occur in New York are designated SGCN, whereas less than 30% of *Aeshna/Rhionaeschna* and *Libellula* species have that designation. This is a similar finding to that of Bried & Mazzacano (2010), who reviewed odonate SGCN species nationwide. They found that genera in the families Corduliidae and Gomphidae contained the highest percentages of species with the SGCN designation and suggested that this could reflect habitat degradation of lotic and bog/fen habitats where these species occur on a national scale.

